Nikon

Nikkor Lenses

High-performance tools
for your Nikon SLR

Nikkor Lenses — Seamless Performance, Abs

When it comes to choosing photographic equipment, perhaps the most important decision a photographer faces is which lens system to use. For the majority of professional photographers, that choice is simple: Nikkor. Why? Because Nikkor lenses offer unrivalled clarity, sharpness, focusing accuracy, range and reliability.

The reasons for this are many, not the least of which is Nikon's total commitment to controlling every aspect of lens manufacturing. By selecting only the finest raw materials and employing the most advanced processing and design techniques, Nikon produces the precision-crafted lens elements that help you take the world's greatest pictures.

This no-compromise attitude toward ultrahigh-tech manufacturing extends to performance. For each Nikkor lens is

Provide both **versatility** and **portability** for every type of photographers from beginners to pros for **every moment.**

Pp. 8-13

Zoom-AF Nikkor Lenses

Fisheye Wideangle & Normal AF Nikkor Lenses

Pp. 14-17

Wideangle AF Nikkors, including AF Fisheye Nikkor, provide superior depth of field and fast apertures for photojournalism and travel. There are also **Normal AF Nikkors** for a natural perspective for diverse applications, from landscapes to candid shots.

Telephoto AF Nikkor Lenses

Pp. 18-23

Telephoto AF Nikkors, including **AF DC-Nikkors, AF-S Nikkors,** and **AF-S & AF-I Teleconverters**, create dramatic sports, wildlife, portrait photographs and everything in between. AF DC-Nikkors offer creative focusing control for exceptional portraits.

olute Precision, and Total Reliability

designed to function seamlessly with Nikon SLRs in a synergy of purposethat is simply unparallelled. This is exemplified most clearly in thelegendary Nikon F mount. For even the most advanced Nikkor lenses incorporate this standard that has won over decades of devotees for its consistency and reliability. This design also ensures that when we release revolutionary cameras like the Nikon F5, D1 with features such as 3D Colour Matrix Metering and 3D Multi-Sensor Balanced Fill-Flash, you can be sure to find an array of Nikkor lenses that can handle these advances too.

Once you see for yourself how smoothly the Nikon-Nikkor combination works, chances are you'll do what most of the world's professional photographers do — **when you reach for a lens, it'll be a Nikkor.**

For absolute **clarity** and **sharpness** of detail for close-up photography.

AF Micro- & PC Micro- Nikkor Lenses

Pp.24-25

Manual-focus Lenses

Pp.28-29

A **versatile** and **unique selection** of manual focus lenses from the ultrawideangle to Reflex Nikkor.

Pp.30-31

Accessories

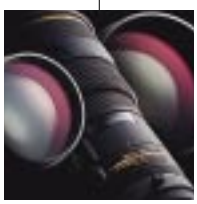
Suggested equipment combinations, and accessories for Nikkor lenses.

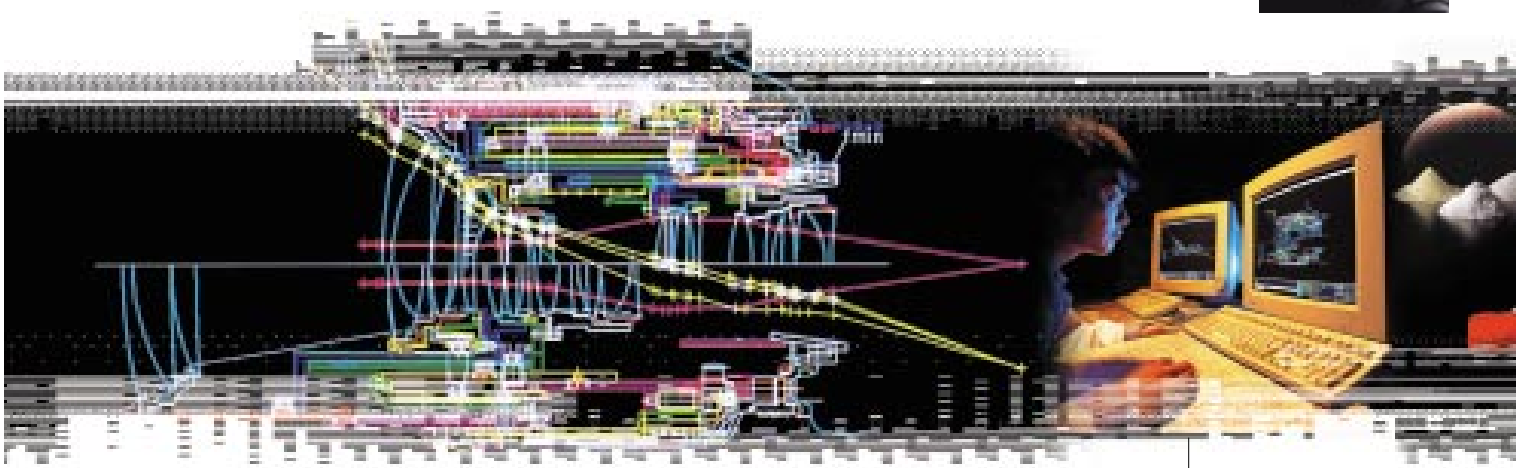
A history of exceptional performance — Nikkor lenses

> "Our commitment to innovation, to the professional and amateur photographers who rely on us, and to the Nikon tradition of excellence, inspires us to design lenses and equipment that are **simply the best**."
>
> *Nikon optical designer*

Nikon began producing lenses under the Nikkor name in 1933, and since then more than 25 million lenses have been sold worldwide. Throughout the years, our unwavering commitment to quality and innovation has yielded many breakthroughs in the photographic industry. In the 1960s, for example, Nikon pioneered the design and production of **aspherical lenses**. In addition, Nikon developed **ED (Extra-low Dispersion) glass** which made its first appearance in the 300mm f/2.8 ED Nikkor telephoto in 1972, and is now incorporated in many other Nikkors. And in 1997, Nikon produced the world's first AF zoom lens for macro photography — the **AF Zoom-Micro** 70-180mm f/4.5-5.6D ED.

These are just a few of the many achievements in lens design that exemplify Nikon's position as the world's preeminent manufacturer of professional photographic equipment. The following offers in-depth technical information that will help you understand more fully why **Nikkor lenses provide superior performance and are thus the best match for your Nikon SLR.**





Optical design using computer

Where it all begins — Nikon glassworks

To make the finest lens elements, you must begin with the finest optical glass. To ensure this, Nikon does what few makers can — it manufactures the glass for nearly all Nikkor lenses in its own glassworks. This means our lens designers have over 200 types of glass to choose from, giving them an exceptional variety from which to select just the right optical glass for their requirements.

Moreover, when these requirements demand lens properties not yet available, the glass technicians work to find a solution — which often results in engineering new types of glass. This is precisely how Nikon developed Extra-low Dispersion (ED) glass in 1972 — to meet design demands for new super-telephoto Nikkors.

Lens construction

The peerless craftsmanship of Nikkor lens elements is matched by the structures that house them. Only the best materials are used for the mechanical construction of each lens. Fine metal alloys and polycarbonates make up the helicoids in some lenses. Inner and outer sleeves are tooled with maximum precision, resulting in the smooth lens movement that characterises the Nikkor lens. The lens mount, too, features similar materials.

Computers and lens design

Nikon designers employ the latest computers and Nikon-developed software to determine the optical design of each lens. Using this data together with their accumulated experience, they create the finest SLR lenses available.

Computer design simulation is also used to ensure the utmost precision in the optical and mechanical parts of each lens as well as the quality of the lens assembly process. In this way, computers can identify problematic areas thus leading to

improved overall lens design and ensuring the superior performance of the finished product.

Electronics — microcomputer innovation for precise performance

The recent advances in the computer industry play an integral role in the makeup as well as design of Nikkor lenses. For in addition to superior optics, each AF Nikkor features a built-in microcomputer. This microcomputer works with the Nikon AF camera computer system to provide information that ensures fast autofocus, Matrix exposure metering, Balanced Fill-Flash, and other Nikon innovations in SLR performance.

Only Nikkor lenses are designed for today's and tomorrow's Nikon SLR cameras, based on information and insight available exclusively within Nikon — including autofocusing parameters. No other lens maker can provide this type of assurance.

The Nikon F lens mount — a tradition of continuity and forward compatibility

The debut of the original Nikon F also marked the introduction of what is perhaps its most significant technological innovation — the Nikon F lens mount. This legendary design ensures that your Nikon camera is compatible with virtually all Nikkor lenses and that your Nikon equipment can accommodate future system advances.

Moreover, the F mount achieves something no other design can — it is compatible with both types of lens drive systems — the conventional mechanical AF coupling design for wideangle and standard zooms, and Nikon's exclusive SWM (Silent Wave Motor) system featured in the most advanced supertelephoto Nikkors. This is just one example why the Nikon F mount continues to be an integral part of Nikon camera equipment design.

Reliability — lenses made to withstand the toughest conditions

Each Nikkor lens is manufactured to meet the most stringent requirements in the industry. The optical glass is scrutinised to assure it is free of imperfections, whereupon it is then remelted, cast, ground, polished and hard-coated to emerge as one of the world's finest lens elements. After being precisely mounted in lens barrels, the lens elements and their assemblies undergo a battery of tests and inspections, including vibration and temperature-resistance analysis. One of these tests concerns the lens' Optical Transfer Function (OTF), which evaluates the resolving power and contrast of the lens. To perform this test, Nikon developed the exclusive Nikon OTF Analyser (NOA).

In addition to these uncompromising tests, Nikon technicians further guarantee the performance of the final product by going over every detail of every finished lens. They check and assure the mechanical construction, electronics, AF movement, zoom and aperture mechanisms, and lens resolution. All of which ensures that the lens does what it's supposed to — provide the outstanding optical performance and reliability that make Nikkor lenses the pro's choice the world over.

Optical glass raw materials

Inspecting glass blocks

Coating lenses

Adjusting optical axis

Inspecting resolution

> "In the last 12 years I've used the Nikon system under all kinds of conditions, from the extreme heat of Death Valley to the extreme cold of Antarctica — and **I'm totally satisfied with its reliable performance.**"
>
> *Rod Planck*

> The legendary **sharpness** and **contrast** of Nikkor lenses are major factors in my choosing Nikon equipment.
>
> *John Shaw*

ED glass

ED glass — *an essential element of Nikkor telephoto lenses*

Nikon developed ED (Extra-low Dispersion) glass to enable the production of lenses that offer superior sharpness and colour correction by minimising chromatic aberration.

Put simply, chromatic aberration is a type of image and colour dispersion that occurs when light rays of varying wavelengths pass through optical glass. In the past, correcting this problem for telephoto lenses required special optical elements that offer anomalous dispersion characteristics — specifically calcium fluoride crystals. However, fluorite easily cracks and is sensitive to temperature changes that can adversely affect focusing by altering the lens' refractive index.

So Nikon designers and engineers put their heads together and came up with ED glass, which offers all the benefits, yet none of the drawbacks of calcium fluorite-based glass. With this innovation, Nikon developed several types of ED glass suitable for various lenses.

They deliver stunning sharpness and contrast even at their largest apertures. In this way, Nikkor's ED-series lenses exemplify Nikon's pre-eminence in lens innovation and performance.

Nikon Super Integrated Coating *ensures exceptional performance*

To enhance the performance of its optical lens elements, Nikon employs an exclusive new multilayer lens coating that helps reduce ghost and flare to a negligible level.

Nikon Super Integrated Coating achieves a number of objectives, including minimised reflection in the wider wavelength range and superior colour balance and reproduction. Nikon Super Integrated Coating is especially effective for lenses with a large number of elements, like our Zoom-Nikkors.

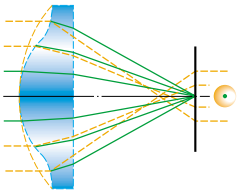
Also, Nikon's multilayer coating process is tailored to the design of each particular lens. The number of coatings applied to each lens element is carefully calculated to match the lens type and glass used, and also to assure the uniform colour balance that characterises Nikkor lenses. This results in lenses that meet much higher standards than the rest of the industry.

Aspherical lens elements

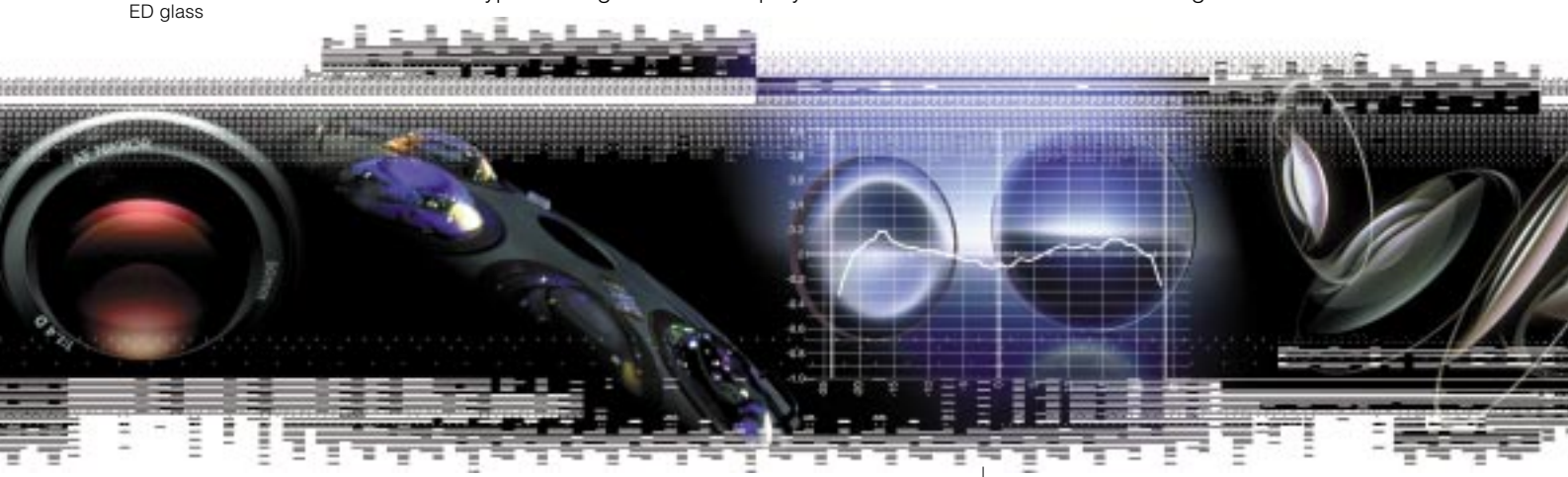
Nikon introduced the first photographic lens with aspherical lens elements in 1968. What sets them apart? Aspherical lenses virtually eliminate the problem of coma and other types of lens aberration — even when used at the widest aperture. They are particularly useful in correcting the distortion in wideangle lenses. In addition, use of aspherical lenses contributes to a lighter and smaller lens design.

Nikon employs three types of aspherical lens elements. **Precision-ground** aspherical lens elements are the finest expression of lens-crafting art, demanding extremely rigorous production standards. **Hybrid** lenses are made of a special plastic moulded onto optical glass. **Moulded glass** aspherical lenses are manufactured by moulding a unique type of optical glass using a special metal die technique.

Aspherical Lens

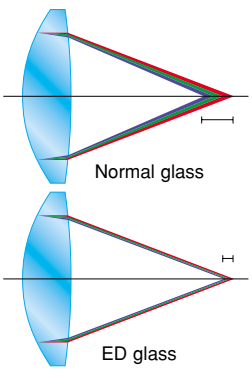


—: Optical path of normal lens
—: Optical path of aspherical lens



Aspherical lens elements

Secondary spectrum



Normal glass

ED glass

Close-Range Correction system

The Close-Range Correction (CRC) system is one of Nikon's most important focusing innovations, for it provides superior picture quality at close focusing distances and increases the focusing range.

With CRC, the lens elements are configured in a "floating element" design wherein each lens group moves independently to achieve focusing. This ensures superior lens performance even when shooting at close distances.

The CRC system is used in fisheye, wideangle, Micro, and selected medium telephoto Nikkors.

Internal Focusing (IF)

Imagine being able to focus a lens without it changing in size. Nikon's IF technology enables just that. All internal optical movement is limited to the interior of the nonextending lens barrel. This allows for a more compact, lightweight construction as well as a closer focusing distance. In addition, a smaller and lighter focusing lens group is employed to ensure faster focusing. The IF system is featured in most Nikkor telephoto and selected Nikkor zoom lenses.

Rear Focusing (RF)

With Nikon's new Rear Focusing (RF) system, all the lens elements are divided into specific lens groups, with only the rear lens group moving for focusing. This makes autofocusing operation smoother and faster.

AF DC-Nikkor lenses—*unique Nikkors for unique portraits*

AF DC-Nikkors feature exclusive Nikon Defocus-image Control technology. This allows photographers to control the degree of spherical aberration in the foreground or background by rotating the lens' DC ring. This will create a rounded out-of-focus blur that is ideal for portrait photography. No other lenses in the world offer this special technique.

Distance information

D-type and G-type Nikkors relay subject-to-camera distance information to AF Nikon camera bodies. This then makes possible advances like 3D Matrix Metering and 3D Multi-Sensor Balanced Fill-Flash.

Note: D-type and G-type Nikkors provide distance information to the following cameras: Auto exposure; F5, F100, F90X, F80, F70, F65, F60, F55, F50, PRONEA S, PRONEA 600i, D1 series and D100 Flash control; F5, F100, F90X, F80, F70, D1 series and D100.

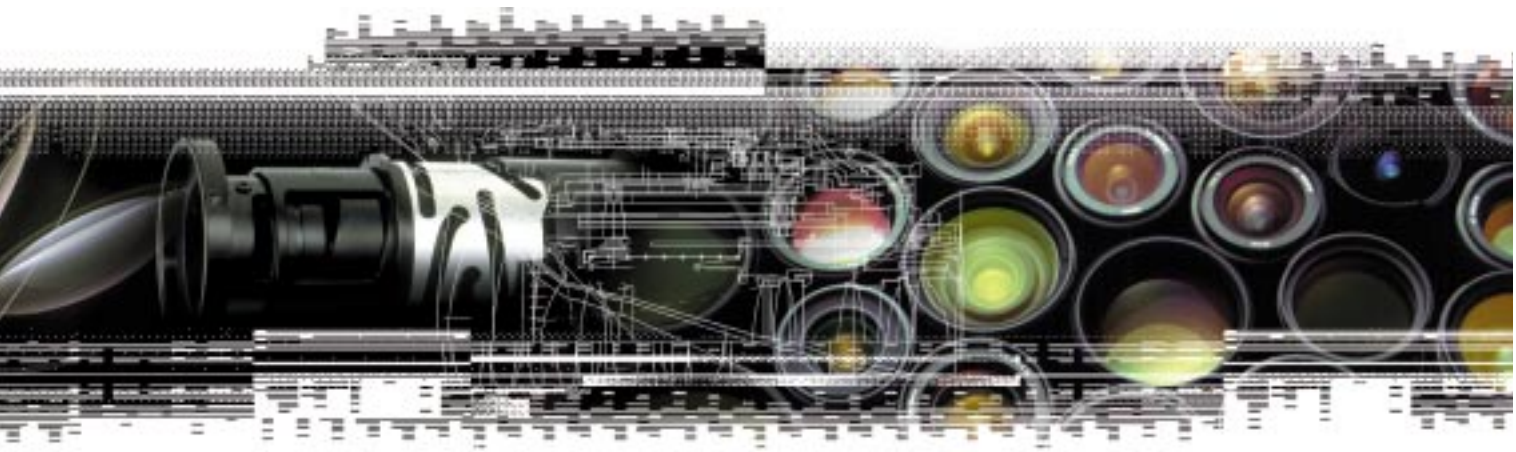
SWM

Silent Wave Motor

Nikon's AF-S technology is yet another reason professional photographers like Nikkor telephoto lenses. AF-S Nikkors feature Nikon's SWM which converts "travelling waves" into rotational energy to focus the optics. This enables high-speed autofocusing that's extremely accurate and super quiet.

M/A mode

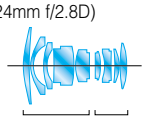
AF-S Nikkors feature Nikon's exclusive M/A mode, that allows switching from autofocus to manual operation with virtually no time lag — even during AF servo operation and regardless of AF mode in use.



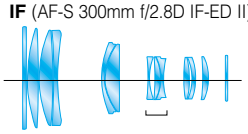
Cam for zoom mechanism

Focusing lens groups

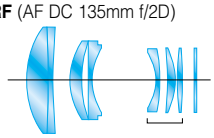
CRC (AF 24mm f/2.8D)



IF (AF-S 300mm f/2.8D IF-ED II)



RF (AF DC 135mm f/2D)

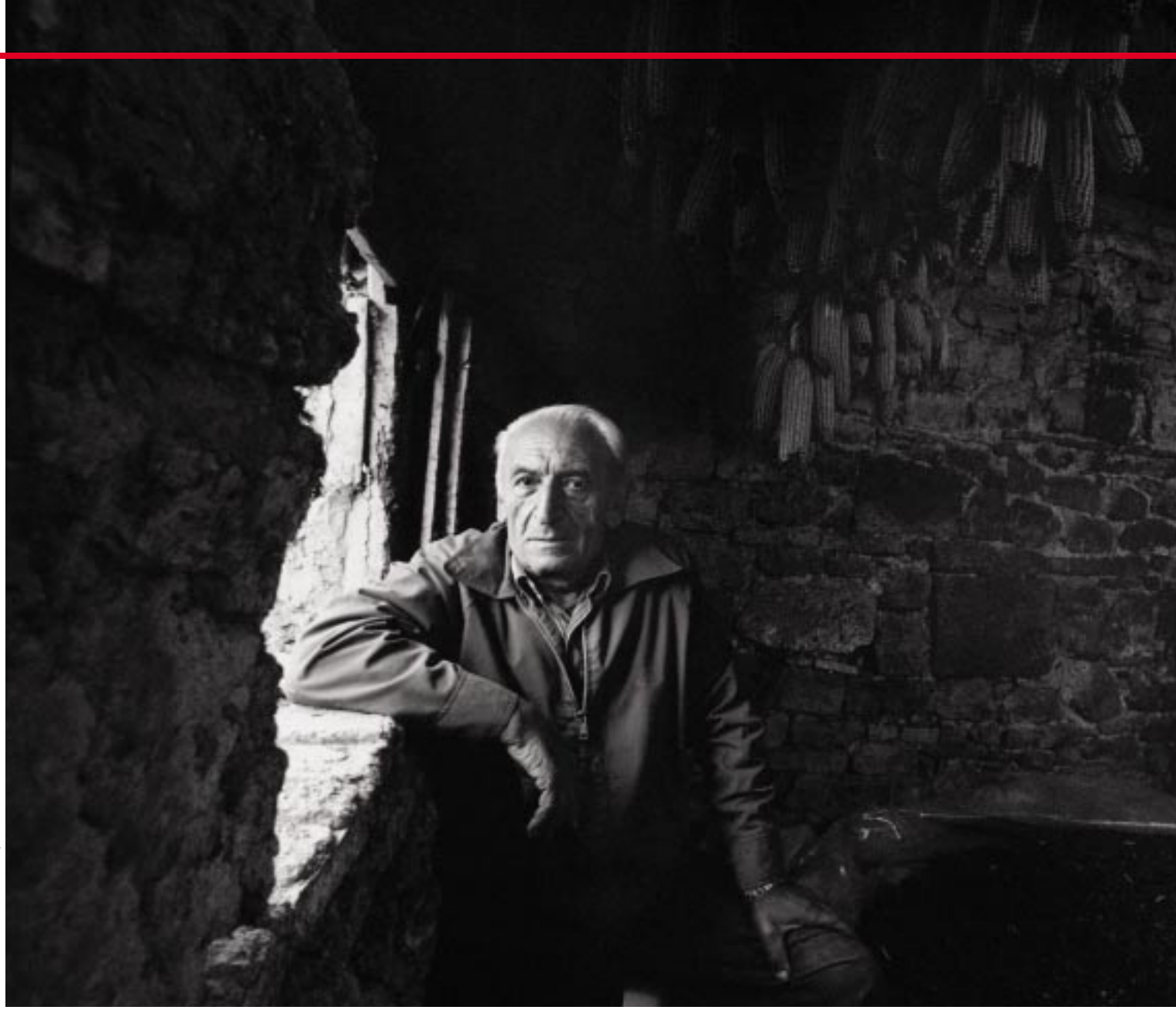


Vibration Reduction (VR)

This innovative VR system minimises image blur caused by camera shake, and offers the equivalent of shooting at a shutter speed three stops (eight times) faster.* It allows handheld shooting at dusk, at night, and even in poorly lit interiors. The lens' VR system also detects automatically when the photographer pans — no special mode is required.

* As determined by Nikon performance tests.

VR lens unit



AF-S Zoom-Nikkor 17-35mm f/2.8D IF-ED © Sue Bennett

AF-S Zoom-Nikkor 80-200mm f/2.8D IF-ED © Frans Lanting

Zoom-AF Nikkor Lenses

© Jon Ortner
AF Zoom-Nikkor 28-105mm f/3.5-4.5D IF

"I bought my **17-35mm f/2.8** Nikkor last fall and ... here's what I found. It's **sharp**. It's **bright**. It's simple. It fits my hand. It covers my new most favourite focal lengths. If I had to choose only one 35mm lens to use, this would be the one. No hesitations."

Sue Bennett

AF-S Zoom-Nikkor 28-70mm f/2.8D IF-ED © Darcy Padilla

AF Zoom-Nikkors — distinguishing features

Nikon offers over a dozen AF Zoom-Nikkors all of which are outstanding. The information below will give you a better idea of which lenses are most suitable for you.

The most obvious starting point when considering a zoom lens is **focal length**, for that will determine your range of usage. Need a great standard zoom for the wideangle to medium telephoto range? There's the **28-80mm** lens, one of the most popular. For greater wideangle coverage, the **17-35mm** and **18-35mm** are favourites of landscape photographers and others who need to shoot expansive scenes. Then there are the more powerful lenses like the **70-300mm** or **80-400mm**. These are ideal for sports and action photography, and for taking shots of people from a distance. And for truly high-power zoom needs, the **24-120mm** and **28-200mm** lenses offer 5x and 7x zoom ratio, respectively. Not only are these two lenses versatile, they're compact as well.

The **speed**, or maximum aperture that a lens offers is another crucial factor. There are several AF Zoom-Nikkors in the wide, medium and powerful telephoto range with a fast f/2.8 that are sure to fit your demands. The **AF-S 17-35mm f/2.8D IF-ED**, **35-70mm f/2.8D**, **AF-S 28-70mm f/2.8D IF-ED**, **AF-S 80-200mm f/2.8D IF-ED** and **80-200mm f/2.8D ED** are all perfectly suited for hand-held shooting in dim light.

Macro focusing is another feature that most AF Zoom-Nikkors offer. Those lenses with the highest reproduction ratios are the **24-85mm f/2.8-4D IF** (max. magnification: 1/2), **28-105mm f/3.5-4.5D IF** (max. magnification: 1/2) and the **70-300mm f/4-5.6D ED** (max. magnification: 1/3.9).

AF Zoom-Nikkor 24-50mm f/3.3-4.5D © Yu Yuntian

Ready for every **moment**

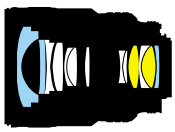
What makes a professional capable of capturing the moment boils down to readiness. And no lenses provide that edge better than **AF Zoom-Nikkors**: lenses that set world standards with all the versatility and portability needed for flawless focusing at an instant's notice. Unbeatable resolution and clarity throughout the entire zoom range put Nikkors in a high-performance class all their own. And SWMs in each **AF-S Zoom-Nikkor*** make autofocusing extra fast and quiet. Explore from a fixed shooting position the extensive focal range of a AF Zoom-Nikkor, and witness how Nikon makes capturing every once-in-a-lifetime moment easier than ever.

* AF operation is possible with the Nikon F5, F4, F100, F90X, F90, F80, F70, F65, PRONEA S, PRONEA 600i, D1 series and D100 only.

AF-S Zoom-Nikkor 17-35mm f/2.8D IF-ED (2.1×)

A high-performance, ultra-wideangle zoom lens with SWM

- Aspherical lenses and ED glass elements
- 0.28m closest focusing throughout zoom range
- M/A mode for quick switching between autofocus and manual focus operation
- Nine-blade rounded diaphragm



Lens construction: 13 elements in 10 groups **Closest focusing:** 0.28m/0.9 ft. **Filter attachment size:** 77mm **Hood:** HB-23 (provided) **Dimensions:** 82.5 x 106mm **Weight:** 745g

AF Zoom-Nikkor 18-35mm f/3.5-4.5D IF-ED (1.9×)

Portable ultra-wideangle zoom lens

- Aspherical lenses and ED glass elements
- Focuses down to 0.33m
- IF (Internal Focusing) technology
- Seven-blade rounded diaphragm

Lens construction: 11 elements in 8 groups **Closest focusing:** 0.33m/1.1 ft. **Filter attachment size:** 77mm **Hood:** HB-23 (provided) **Dimensions:** 82.7 x 82.5mm **Weight:** 370g

AF Zoom-Nikkor 24-50mm f/3.3-4.5D (2.1×)

Wideangle zoom for landscapes

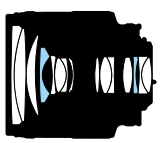
- Compact, lightweight wideangle zoom
- Excellent picture quality at every focal length
- Focuses down to 0.5m

Lens construction: 9 elements in 9 groups **Closest focusing:** 0.6m/2 ft. (0.5m/1.6 ft. at macro setting) **Filter attachment size:** 62mm **Hood:** HB-3 **Dimensions:** 67.5 x 74.1mm **Weight:** 355g

AF Zoom-Nikkor 24-85mm f/2.8-4D IF (3.5×)

High-performance standard zoom lens for landscapes to portraits

- Fast f/2.8 maximum aperture at 24mm focal length
- Provides maximum 1:2 reproduction ratio from 35-85mm
- Hybrid and moulded-glass aspherical lens elements
- Nine-blade rounded diaphragm



Lens construction: 15 elements in 11 groups **Closest focusing:** 0.5m/1.6 ft. (0.21m/0.7 ft. at macro setting) **Filter attachment size:** 72mm **Hood:** HB-25 (provided) **Dimensions:** 78.5 x 82.5mm **Weight:** 545g

: ED glass elements
: Aspherical lens elements

AF-S Zoom-Nikkor 24-85mm f/3.5-4.5G IF-ED* (3.5×)

High-quality G-type standard zoom lens

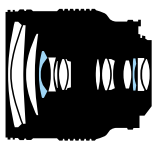
- SWM provides super-fast, super-quiet AF operation
- ED glass element
- Hybrid-type aspherical lens element
- M/A mode for quick switching between autofocus and manual focus operation
- IF technology
- Seven-blade rounded diaphragm

Lens construction: 15 elements in 12 groups
Closest focusing: 0.38m/1.25 ft.
Filter attachment size: 67mm **Hood:** HB-28 (provided) **Dimensions:** Approx. 73 x 72.5mm **Weight:** Approx. 415g

AF Zoom-Nikkor 24-120mm f/3.5-5.6D IF (5.0×)

Portable high-power zoom lens

- Compact, lightweight, versatile 5× zoom lens
- Ideal for travel, landscape and portrait photography
- Hybrid and moulded-glass aspherical lens elements
- IF (Internal Focusing) technology

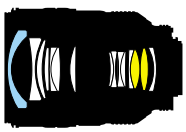


Lens construction: 15 elements in 11 groups
Closest focusing: 0.5m/2 ft.
Filter attachment size: 72mm **Hood:** HB-11
Dimensions: 79 x 80mm **Weight:** 550g

AF-S Zoom-Nikkor 28-70mm f/2.8D IF-ED (2.5×)

A high-performance standard zoom lens with SWM

- Two ED glass elements and moulded glass aspherical lens element
- Superior optical performance
- M/A mode for quick switching between autofocus and manual focus operation
- Nine-blade rounded diaphragm



Lens construction: 15 elements in 11 groups
Closest focusing: 0.7m/2.3 ft. (0.5m/1.6 ft. at macro setting) **Filter attachment size:** 77mm
Hood: HB-19 (provided)
Dimensions: 88.5 x 121.5mm **Weight:** 935g

AF Zoom-Nikkor 28-80mm f/3.3-5.6G* (2.9×)

Portable G-type standard zoom lens

- Ultracompact and light (195g)
- Hybrid-type aspherical lens element
- Focuses down to 0.35m
- Seven-blade rounded diaphragm

Lens construction: 6 elements in 6 groups
Closest focusing: 0.35m/1.1 ft.
Filter attachment size: 58mm **Hood:** HB-20
Dimensions: 66.5 x 64mm **Weight:** 195g

AF Zoom-Nikkor 28-100mm f/3.5-5.6G* (3.6×)

High-power standard G-type zoom lens with enhanced telephoto capabilities

- Ultracompact and light (245g)
- Hybrid-type aspherical lens element
- Seven-blade rounded diaphragm
- Super Integrated Coating technology

Lens construction: 8 elements in 6 groups
Closest Focusing: 0.56m/1.83 ft.
Filter attachment size: 62mm **Hood:** HB-27
Dimensions: Approx. 68 x 80mm
Weight: Approx. 245g

AF Zoom-Nikkor 28-105mm f/3.5-4.5D IF (3.8×)

High-performance standard zoom

- Provides maximum 1:2 reproduction ratio from 50-105mm
- Effective aperture does not vary with focus distance
- Hybrid-type aspherical lens element
- IF (Internal Focusing) technology
- Nine-blade rounded diaphragm

Note: Slight vignetting may occur when macro shooting near the maximum 1:2 reproduction ratio at telephoto setting.

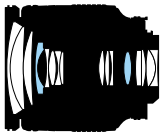
Lens construction: 16 elements in 12 groups
Closest focusing: 0.5m/1.5 ft. (0.22m/0.7 ft. at macro setting)
Filter attachment size: 62mm **Hood:** HB-18
Dimensions: 73 x 81.5mm **Weight:** 455g

* The G-type Nikkor has no aperture ring; aperture should be selected from camera body.
G-type Nikkor is compatible with all exposure modes of the Nikon F5, F100, F80, F65, F60, F55, F50, F-401-series, PRONEA 600i, PRONEA S, D1 series and D100, and the P and S modes of the F4, F90-series, F70, F-801-series and F-601M. Other cameras are not compatible.

AF Zoom-Nikkor 28-200mm f/3.5-5.6D IF (7.1×) ASP IF D SIC

Flexible high-power zoom lens for landscapes, portraits, sports...

- Powerful 7.1× zoom lens
- Compact and lightweight
- Hybrid and moulded glass aspherical lens elements
- IF (Internal Focusing) technology



Note: Autofocus may not work properly with the Nikon F-801s camera body. Please contact your local Nikon Service Centre for camera body modification information.

Lens construction: 16 elements in 13 groups
Closest focusing: 2m/7 ft. (0.85m-1.5m/2.8 ft.-4.9 ft. at macro setting*)
Filter attachment size: 72mm **Hood:** HB-12 (Provided) **Dimensions:** 78 x 86.5mm
Weight: 520g

*0.85m/2.8 ft. at 28mm or 1.5m/4.9 ft. at 200mm.

AF Zoom-Nikkor 35-70mm f/2.8D (2.0×) D SIC

High-performance standard zoom for general photography

- High-speed, standard zoom lens
- Holds its fast f/2.8 maximum aperture over the entire range of focal lengths
- Minimum distortion throughout zoom range

Lens construction: 15 elements in 12 groups
Closest focusing: 0.6m/2 ft. (0.28m/0.9 ft. at macro setting) **Filter attachment size:** 62mm
Hood: HB-1 **Dimensions:** 71.5 x 94.5mm
Weight: 665g

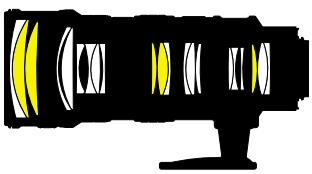
AF-S VR Zoom-Nikkor 70-200mm f/2.8G* IF-ED (2.9×) ED IF D SWM M/A SIC VR

Compact, lightweight G-type fast telephoto zoom lens with Vibration Reduction

- Built-in SWM for ultra-fast, ultra-quiet AF operation
- VR operation offers the equivalent of using a shutter speed 3 stops (eight times) faster*
- Two VR modes are available; Normal and Active
- Five ED glass elements

* As determined by Nikon performance tests.

Note: VR operation works with the Nikon F5, F100, F80, F65, D1 series and D100

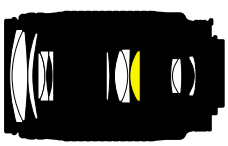


Lens construction: 21 elements in 15 groups
Closest focusing: 1.5m/5 ft. **Filter attachment size:** 77mm **Hood:** HB-29 (provided)
Dimensions: 87 x 215mm **Weight:** 1470g (1395g without tripod mounting foot)

AF Zoom-Nikkor 70-300mm f/4-5.6D ED (4.3×) ED D SIC

High-power, portable telephoto zoom

- Powerful 4.3× telephoto zoom lens
- ED glass elements ensure superior optical performance
- Rotating zoom ring for precise zoom operation

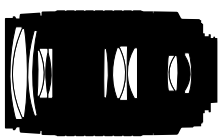


Lens construction: 13 elements in 9 groups
Closest focusing: 1.5m/5 ft. **Filter attachment size:** 62mm **Hood:** HB-15 (Provided)
Dimensions: 74 x 116mm **Weight:** 505g

AF Zoom-Nikkor 70-300mm f/4-5.6G* (4.3×) D SIC

High-power G-type telephoto zoom lens

- Nine-blade rounded diaphragm
- Provides distance information to AF Nikon cameras



Lens construction: 13 elements in 9 groups
Closest focusing: 1.5m/4.9 ft. **Filter attachment size:** 62mm **Hood:** HB-26 (provided)
Dimensions: 74 x 116.5mm **Weight:** 425g

***** The G-type Nikkor has no aperture ring; aperture should be selected from camera body.
G-type Nikkor is compatible with all exposure modes of the Nikon F5, F100, F80, F65, F60, F55, F50, F-401-series, PRONEA 600i, PRONEA S, D1 series and D100, and the P and S modes of the F4, F90-series, F70, F-801-series and F-601M. Other cameras are not compatible.

AF-S Zoom-Nikkor 80-200mm f/2.8D IF-ED © Sue Bennett

AF VR Zoom-Nikkor 80-400mm f/4.5-5.6D ED © N. Yuasa

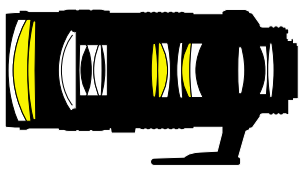
With Vibration Reduction (Exposure data: f/5.6, 1/8 sec., 300mm setting)
Without Vibration Reduction (Exposure data: f/5.6, 1/8 sec., 300mm setting)

■: ED glass elements
■: Aspherical lens elements

AF-S Zoom-Nikkor 80-200mm f/2.8D IF-ED (2.5×) ED IF D SWM M/A SIC

A high-performance telephoto zoom lens with SWM

- SWM provides super-fast, super-quiet AF operation
- Closest focusing distance of 1.5m
- M/A mode for quick switching between autofocus and manual focus operation
- Newly designed optical system for superior optical performance
- Five ED glass elements



Lens construction: 18 elements in 14 groups
Closest focusing: 1.5m/4.9 ft. **Filter attachment size:** 77mm **Hood:** HB-17 (provided)
Dimensions: 88 x 207mm **Weight:** 1580g (1450g without tripod collar)

AF Zoom-Nikkor 80-200mm f/2.8D ED (2.5×) ED D SIC

Superb telephoto zoom for sports and portraits

- High-performance, high-speed, telephoto zoom lens
- Holds its fast f/2.8 maximum aperture over the entire range of focal lengths
- Three ED glass elements
- Rotating zoom ring for precise zoom operation

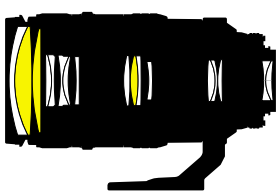
Lens construction: 16 elements in 11 groups
Closest focusing: 1.8m/6 ft. (1.5m/4.9 ft. at macro setting) **Filter attachment size:** 77mm
Hood: HB-7 **Dimensions:** 87 x 187mm
Weight: 1300g

AF VR Zoom-Nikkor 80-400mm f/4.5-5.6D ED (5×) ED D SIC VR

Compact, lightweight telephoto zoom lens with Vibration Reduction

- VR operation offers the equivalent of using a shutter speed 3 stops (eight times) faster.*
- Vibration Reduction for the viewfinder is cancellable to conserve battery power
- Panning is automatically detected
- Three ED glass elements ensure superior optical performance.
- Nine-blade rounded diaphragm

* As determined by Nikon performance tests.
Note: VR operation works with the Nikon F5, F100, F80, F65, D1 series and D100



Lens construction: 17 elements in 11 groups
Closest focusing: 2.3m/7.5 ft. **Filter attachment size:** 77mm **Hood:** HB-24 (provided)
Dimensions: 91 x 171mm **Weight:** 1340g (1210g without tripod mounting foot)

John Shaw

John Shaw

"For years I've carried Nikon wideangle lenses for two very simple reasons: I know the **image quality** will be the **very best** possible, and for a working pro **like myself**, there is no substitute."

AF Nikkor 35mm f/2D © John Shaw

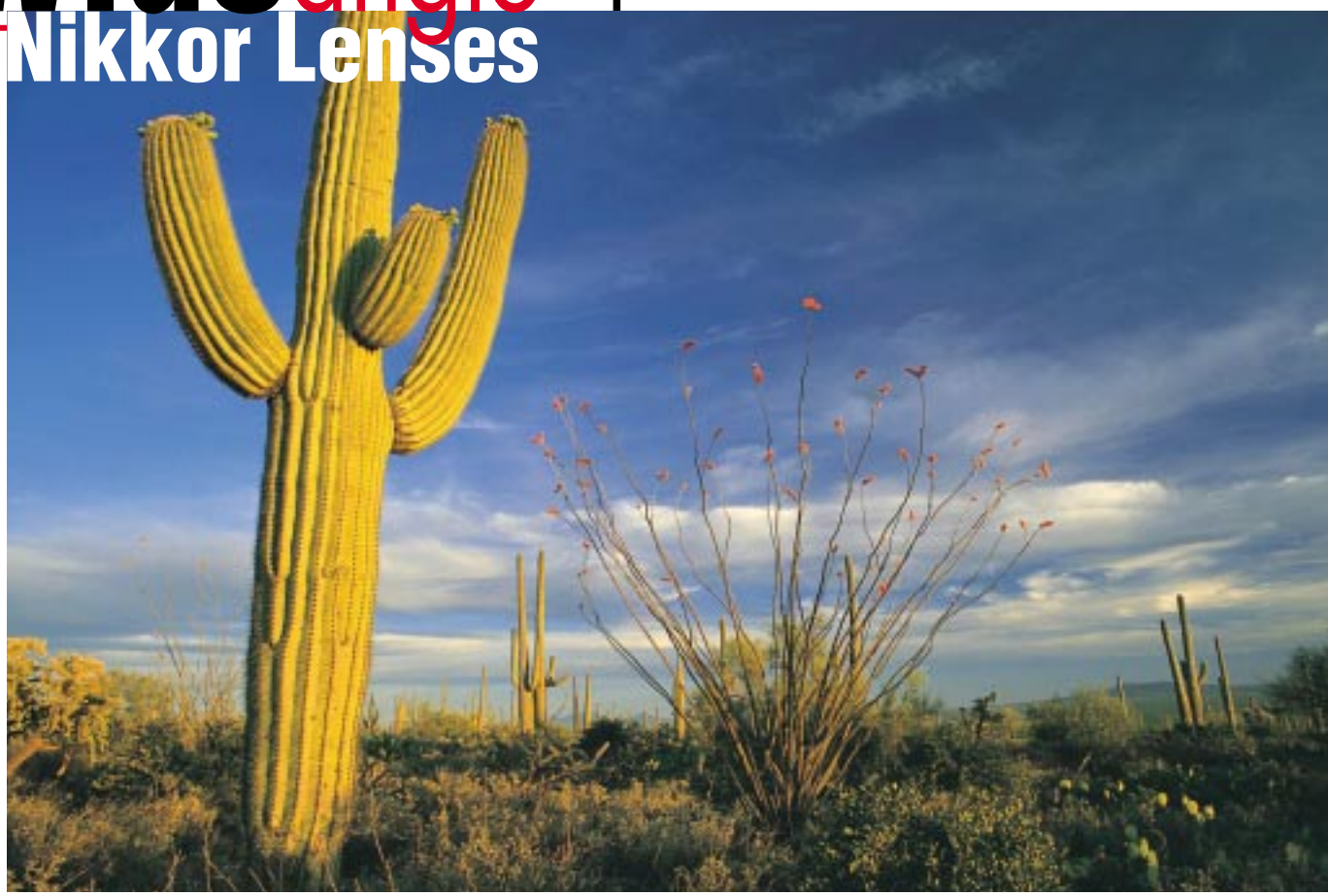
Fisheye & Wideangle AF Nikkor Lenses

Normal AF Nikkor Lenses

"I **always** come back to it because it is the **closest** lens to using my **eyes**."

Darcy Padilla

Darcy Padilla



AF Nikkor 24mm f/2.8D © John Shaw

AF Nikkor 50mm f/1.4D © Darcy Padilla

Wideangle and Normal AF Nikkors — distinguishing features

Wideangle Nikkors are perfect for shooting in tight indoor areas or when taking group shots. Travel, landscape, and commercial photography are just a few of the applications suited to these lenses. The **14mm f/2.8D ED** and **18mm f/2.8D** offer the widest views, while the **28mm f/1.4D** is the fastest of the group, making it especially useful when shooting in dim light.

For one of the most unique perspectives in photography, there's the **16mm fisheye f/2.8D**. Featuring Nikon's unique Close-Range Correction (CRC) system, the lens provides a 180° angle of view with consistent picture quality from all focusing distances.

Normal lenses are so called because they provide a 46° picture angle, for an angle of view that approximates that of the human eye. They are useful for many applications, from landscapes to candid shots. Other advantages include wide maximum apertures. The **50mm f/1.4D** is extremely fast, and the **50mm f/1.8D** is the most compact of all AF Nikkor lenses.

AF Nikkor 50mm f/1.4D © Conrad Godly

AF Nikkor 50mm f/1.4D © Samuel Zuder

AF Fisheye-Nikkor 16mm f/2.8D © Joe McNally

For **expansive views** and **natural** perspectives

Nikon's wideangle Nikkor lenses deliver superior performance for a variety of photographic purposes. From 14mm ultra-wideangle to standard 35mm, they offer a large picture angle, impressive depth of field and fast optics.

There are also two normal lenses that provide exquisite optics and speed — great for landscapes, candid shots and portraits, to name a few.

AF Fisheye Nikkor Lenses

AF Fisheye-Nikkor 16mm f/2.8D

Frame-filling fisheye makes dramatic images

- Full-frame fisheye images with a picture angle of 180° (diagonal)
- Close-Range Correction (CRC) system provides high performance at both near and far focusing distances
- Focuses down to 0.25m

Lens construction: 8 elements in 5 groups **Closest focusing:** 0.25m/0.85 ft. **Filter (provided):** L37C, A2, B2, O56 **Hood:** Built-in **Dimensions:** 63 x 57mm **Weight:** 290g

AF Wideangle Nikkor Lenses

AF Nikkor 14mm f/2.8D ED

High-performance, ultra -wideangle lens for photo journalism

- Hybrid aspherical lens elements and ED glass element
- Used as 21mm (converted to 135 format) lens when attached to the Nikon D1 series
- RF (rear focusing) system

Lens construction: 14 elements in 12 groups **Closest focusing:** 0.2m/0.66 ft. **Built-in gelatine filter holder:** provided at rear of lens **Hood:** Built-in **Dimensions:** 87 x 86.5mm **Weight:** 670g

AF Nikkor 18mm f/2.8D

Ultra-wideangle for architectural and scenic photography

- Compact ultra-wideangle lens with a 100° picture angle
- Moulded-glass aspherical lens and rear-focusing system ensures superior optical performance
- Superb centre-to-edge sharpness
- Advanced optical system minimises coma even at maximum aperture

Lens construction: 13 elements in 10 groups **Closest focusing:** 0.25m/0.85 ft. **Filter attachment size:** 77mm **Hood:** HB-8 (Provided) **Dimensions:** 82 x 58mm **Weight:** 380g

AF Nikkor 20mm f/2.8D

Versatile ultra-wideangle lens for general photography

- Compact ultra-wideangle lens construction
- Close-Range Correction (CRC) system
- 94° picture coverage with edge-to-edge sharpness

Lens construction: 12 elements in 9 groups **Closest focusing:** 0.25m/0.85 ft. **Filter attachment size:** 62mm **Hood:** HB-4 **Dimensions:** 69 x 42.5mm **Weight:** 270g

■: ED glass elements
■: Aspherical lens elements

AF Nikkor 24mm f/2.8D

Superb wideangle for landscapes or candids

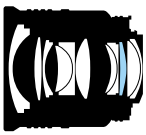
- Compact wideangle lens
- Lightweight construction
- Close-Range Correction (CRC) system
- 84° picture coverage with edge-to-edge sharpness

Lens construction: 9 elements in 9 groups
Closest focusing: 0.3m/1 ft.
Filter attachment size: 52mm **Hood:** HN-1
Dimensions: 64.5 x 46mm **Weight:** 270g

AF Nikkor 28mm f/1.4D

Fast lens for landscapes and dimly lit situations indoors or out

- Fast, f/1.4 wideangle lens
- Ideal for low-light photography
- Precision-ground aspherical lens element
- Close-Range Correction (CRC) system



Lens construction: 11 elements in 8 groups
Closest focusing: 0.35m/1.15 ft.
Filter attachment size: 72mm **Hood:** HK-7
Dimensions: 75 x 77.5mm **Weight:** 520g

AF Nikkor 28mm f/2.8D

Standard wideangle for general photography

- Compact, lightweight wideangle lens
- 74° picture coverage for superlative flexibility
- Focuses down to 0.25m/0.85 ft.

Lens construction: 6 elements in 6 groups
Closest focusing: 0.25m/0.85 ft. **Filter attachment size:** 52mm **Hood:** HN-2
Dimensions: 65 x 44.5mm **Weight:** 205g

AF Nikkor 28mm f/1.4D © John Shaw

AF Nikkor 35mm f/2D

Versatile wideangle ideal for a broad range of uses

- Compact, lightweight wideangle lens
- 62° picture coverage
- Great for travel and candid photography

Lens construction: 6 elements in 5 groups
Closest focusing: 0.25m/0.85 ft. **Filter attachment size:** 52mm **Hood:** HN-3
Dimensions: 64.5 x 43.5mm **Weight:** 205g

AF Normal Nikkor Lenses

AF Nikkor 50mm f/1.4D

High-performance normal lens

- High-speed normal lens
- Great for travel and for shooting full-length portraits in available light
- Distortion-free images with superb resolution and colour rendition
- Provides high-contrast images even at maximum aperture

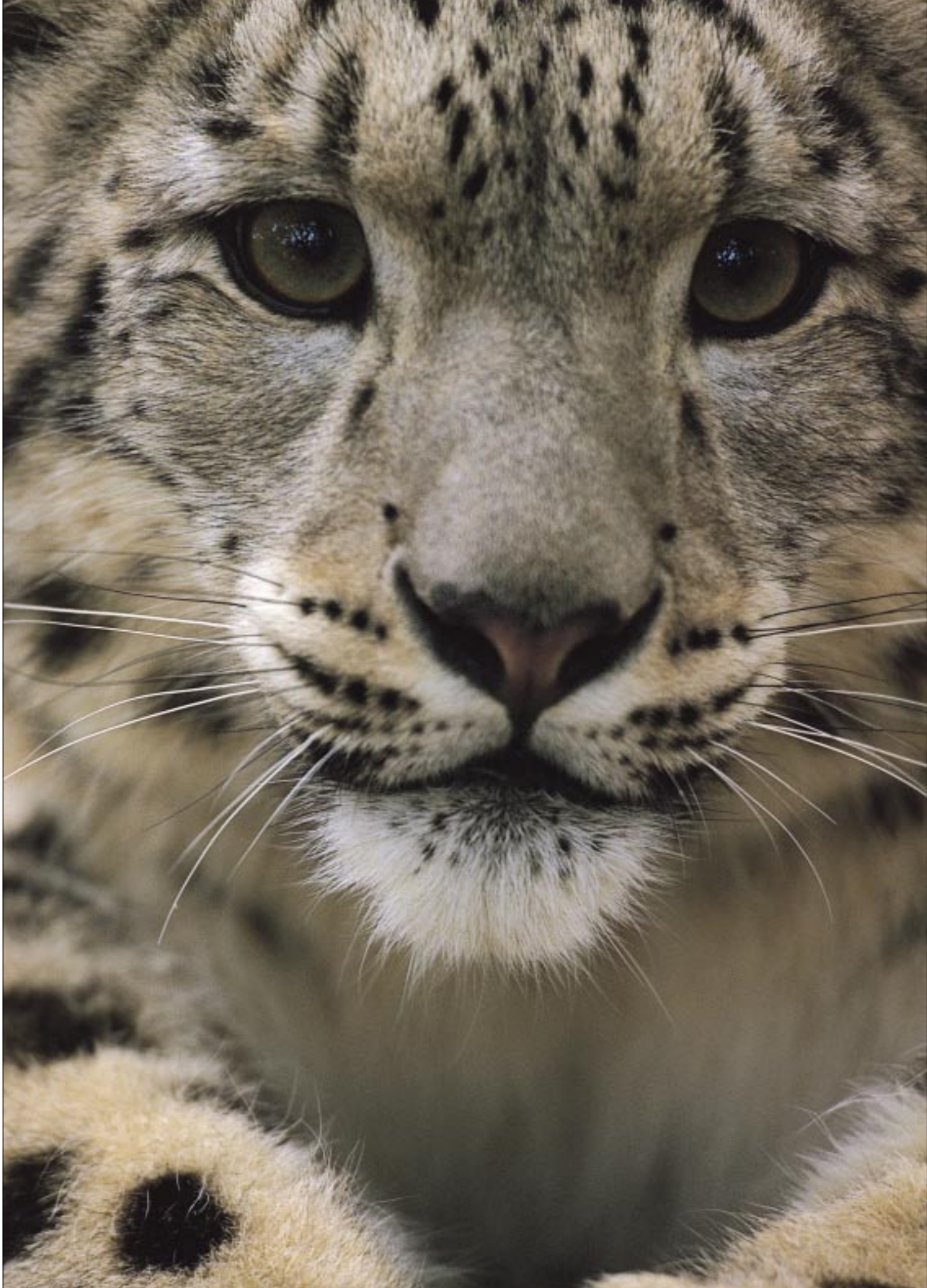
Lens construction: 7 elements in 6 groups
Closest focusing: 0.45m/1.5 ft.
Filter attachment size: 52mm **Hood:** HR-2
Dimensions: 64.5 x 42.5mm **Weight:** 230g

AF Nikkor 50mm f/1.8D

Portable normal lens

- Compact, affordable normal lens
- Lightweight (155g)
- Great depth-of-field control — stops down to f/22
- Ideal for close-up photography with an auto extension ring

Lens construction: 6 elements in 5 groups
Closest focusing: 0.45m/1.5 ft.
Filter attachment size: 52mm **Hood:** HR-2
Dimensions: 63.5 x 39mm **Weight:** 155g

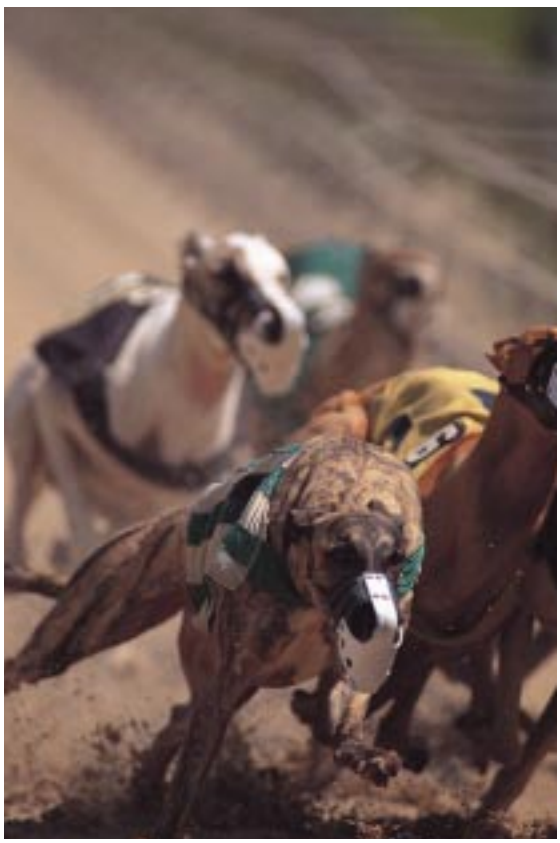


Telephoto AF Nikkor Lenses

(DC-Nikkors, AF-S Nikkors, AF-S & AF-I Teleconverters)

"The Nikkor **300mm f/2.8 AF-S** lens is the single most important lens in my bag. With extenders I can use it to photograph wildlife far away without loss of quality but I also use it for close-ups when animals are too nervous to allow me to use a shorter lens. That was the case with the snow leopard. It was a captive individual but even captive cats get annoyed when you get too close to them and stare them in the face. The 300mm f/2.8 was a perfect solution."

Frans Lanting



AF-S Nikkor 300mm f/2.8D IF-ED II © Frans Lanting

AF-S Nikkor 600mm f/4D IF-ED II © Joe McNally

Telephoto AF Nikkors — distinguishing features

With an array of focal lengths from 85mm to 600mm, extraordinary optics and high-performance autofocusing, telephoto AF Nikkors have much to offer any serious photographer.

Nikkor telephoto lenses bearing the **AF-S** name offer incredibly fast, quiet autofocus operation, thanks to Nikon's exclusive **SWM.**

Indispensable for shooting fast-moving action, these telephoto lenses deliver superior autofocusing for the Nikon F5, F100, F90X, F90, F80, F70, F65, PRONEA S, PRONEA 600i and D1 series cameras, and provide manual focusing for other Nikon SLRs.

Other AF-S Nikkor features include an innovative **M/A control** that lets you switch quickly from automatic to manual focusing modes, ergonomically placed **focus lock buttons**, and a **focus range limiter** that diminishes autofocusing time.

For exceptional portrait photography, try the **AF DC-Nikkor** lenses. They offer Nikon's exclusive **Defocus-image Control** which allows you to adjust the amount of foreground or background blur with a rotating ring. Nine-blade diaphragm built into the lenses creates a rounded out-of-focus blur that is ideal for portraits.

Nikon also offers **AF-S & AF-I Teleconverters** designed exclusively for Nikkor AF-S and AF-I lenses. The **TC-14E II/14E** increases the focal length of your Nikkor telephoto lens by 40%, while the **TC-20E II/20E** transforms a 300mm telephoto lens, for example, into a 600mm supertelephoto — thus doubling your telephoto power.

AF Nikkor 180mm f/2.8D IF-ED © Yu Yuntian

The **muscle** and **speed** to bring **distant scenes** up close

When you need the power to pull distant scenes up close, focus quickly and get the shot, Nikkor telephoto lenses do the job — and then some. There's nothing better for making dynamic sports or action shots that fill the entire frame, or making your subject stand out against the background for real impact. And with Nikkor, you've got an exceptional array of lenses to choose from.

Create **d**ramatic **s**ports, **w**ildlife, **p**ortrait **photographs** and **everything** in between.

AF Telephoto Nikkor Lenses

: ED glass elements
: Aspherical lens elements

AF Nikkor 85mm f/1.4D IF

The fastest Nikkor telephoto — great for indoor portraits

- High-performance medium telephoto lens
- Fast maximum aperture of f/1.4
- IF (Internal Focusing) technology for fast AF operation
- Rounded diaphragm opening makes out-of-focus elements appear more natural

Lens construction: 9 elements in 8 groups
Closest focusing: 0.85m/3 ft. **Filter attachment size:** 77mm **Hood:** HN-31 (Provided)
Dimensions: 80 x 72.5mm **Weight:** 550g

AF Nikkor 85mm f/1.8D

Portable medium telephoto — ideal for portraits

- High-speed telephoto lens
- RF (rear focus) technology for fast AF operation
- Very compact and light
- Ideal for indoor or outdoor portrait shooting

Lens construction: 6 elements in 6 groups
Closest focusing: 0.85m/3 ft. **Filter attachment size:** 62mm **Hood:** HN-23 (Provided)
Dimensions: 71.5 x 58.5mm **Weight:** 380g

AF Nikkor 180mm f/2.8D IF-ED

High-performance medium telephoto for sports arenas or concert halls

- High-performance telephoto lens
- Perfect for news, sports, action and astronomical photography
- ED glass element
- IF (Internal Focusing) technology

Lens construction: 8 elements in 6 groups
Closest focusing: 1.5m/5 ft. **Filter attachment size:** 72mm **Hood:** Built-in
Dimensions: 78.5 x 144mm **Weight:** 760g

AF Nikkor 300mm f/2.8 IF-ED

High-performance telephoto for sports and fast-action shooting

- High-performance, high-speed 300mm telephoto lens
- Optimum balance and operation even when focusing manually
- ED glass elements
- IF (Internal Focusing) technology

Lens construction: 8 elements in 6 groups
Closest focusing: 3m/10 ft. **Filter attachment size:** 39mm **Hood:** Built-in, HE-6 (Provided) **Dimensions:** 133 x 255mm
Weight: 2700g

Creative focusing control for **e**xceptional **p**ortraits.

AF DC-Nikkor 105mm f/2D
© Conrad Godly

AF**DC** Nikkor Lenses

AF DC-Nikkor 105mm f/2D

Standard portrait lens with Defocus-image Control

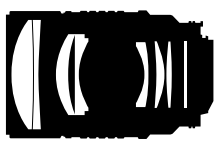
- Fast, medium telephoto lens with Defocus-image Control
- Large maximum aperture allows shooting in dim light
- Rounded diaphragm opening makes out-of-focus elements appear more natural
- RF (rear focus) technology for fast AF operation

Lens construction: 6 elements in 6 groups
Closest focusing: 0.9m/3 ft. **Filter attachment size:** 72mm **Hood:** Built-in
Dimensions: 79 x 111mm **Weight:** 640g

AF DC-Nikkor 135mm f/2D

High-performance telephoto with Defocus-image Control

- Fast telephoto lens featuring Defocus-image Control
- Large maximum aperture allows shooting in dim light
- Rounded diaphragm opening makes out-of-focus elements appear more natural
- RF (rear focus) technology for fast AF operation



Lens construction: 7 elements in 6 groups
Closest focusing: 1.1m/4 ft. **Filter attachment size:** 72mm **Hood:** Built-in
Dimensions: 79 x 120mm **Weight:** 815g

AF-S Nikkor 400mm f/2.8D IF-ED II © Dave Black

AF-S Nikkor 500mm f/4D IF-ED II © John Shaw

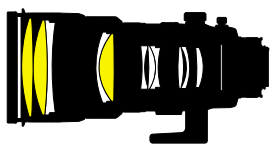
AF-S Nikkor Lenses

Note: AF operation is possible with the Nikon F5, F4, F100, F90X, F90, F80, F70, F65, PRONEA S, PRONEA 600i, D1 series and D100 only.

AF-S Nikkor 300mm f/2.8D IF-ED II

Telephoto lens with SWM for serious sport photographers

- Magnesium alloy ensures lightweight body
- High optical performance even with a teleconverter attached
- ED glass elements
- M/A mode
- Focuses down to 2.3m (2.2m for MF)
- Nine-blade rounded diaphragm



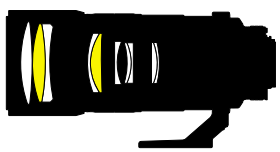
Lens construction: 11 elements in 8 groups **Closest focusing:** 2.3m/7.5 ft. (2.2m/7.2 ft. in MF)* **Filter attachment size:** 52mm **Hood:** HK-26 (Provided) **Dimensions:** 124 x 268.5mm **Weight:** 2560g

* At normal temperature

AF-S Nikkor 300mm f/4D IF-ED

A light, compact AF-S telephoto lens

- High optical performance even with a teleconverter attached
- ED glass elements
- 1.45m closest focusing
- M/A mode allows rapid switching between autofocus and manual operation
- Nine-blade rounded diaphragm

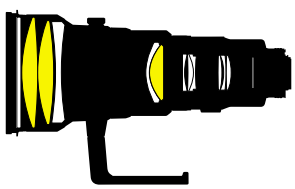


Lens construction: 10 elements in 6 groups **Closest focusing:** 1.45m/4.8 ft. **Filter attachment size:** 77mm **Hood:** Built-in **Dimensions:** 90 x 222.5mm **Weight:** 1440g (1300g without tripod mounting foot)

AF-S Nikkor 400mm f/2.8D IF-ED II

Compact, high-performance supertelephoto

- Magnesium alloy ensures lightweight body
- Ideal for wildlife and sports photography
- ED glass elements
- M/A mode allows rapid switching between autofocus and manual focus operation
- Nine-blade rounded diaphragm



Lens construction: 11 elements in 9 groups **Closest focusing:** 3.5m/11.5 ft.(3.4m/11.2 ft. in MF)* **Filter attachment size:** 52mm **Hood:** HK-25 (Provided) **Dimensions:** 159.5 x 351.5mm **Weight:** 4440g

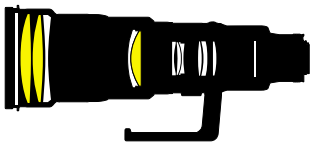
* At normal temperature

: ED glass elements
: Aspherical lens elements

AF-S Nikkor 500mm f/4D IF-ED II

Powerful supertelephoto with SWM

- Magnesium alloy ensures lightweight body
- ED glass elements
- M/A mode allows rapid switching between autofocus and manual focus operation
- Nine-blade rounded diaphragm

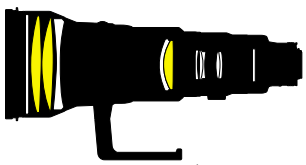


Lens construction: 11 elements in 9 groups
Closest focusing: 4.6m/15.1 ft. (4.4m/14.4 ft. in MF)* **Filter attachment size:** 52mm **Hood:** HK-24 (Provided)
Dimensions: 139.5 x 394mm
Weight: 3430g
* At normal temperature

AF-S Nikkor 600mm f/4D IF-ED II

Powerful supertelephoto for distant fast-moving subjects and wildlife

- Magnesium alloy ensures lightweight body
- ED glass elements
- M/A mode allows rapid switching between autofocus and manual focus operation
- Perfect for sports and fast-action photography
- Nine-blade rounded diaphragm



Lens construction: 10 elements in 7 groups
Closest focusing: 5.6m/18.4 ft. (5.4m/17.7 ft. in MF)* **Filter attachment size:** 52mm **Hood:** HK-23 **Dimensions:** 166 x 430.5mm **Weight:** 4750g
* At normal temperature

A **S**imple way to **b**oost the **p**ower of **your** **AF-S Nikkor.**

AF-S Nikkor 400mm f/2.8D IF-ED II with TC-14E II © John Shaw

AF-S & AF-I Teleconverters

Note:
AF-S and AF-I Teleconverters are compatible with AF-S and AF-I Nikkor lenses except AF-S 17-35mm f/2.8D IF-ED, AF-S 24-85mm f/3.5-4.5G IF-ED and AF-S 28-70mm f/2.8D IF-ED.

AF-S Teleconverter TC-14E II

- New cosmetic design matches the latest AF-S Nikkor lenses
- Increases the original focal length by 40%
- Reduces lens aperture by one f-stop
- Autofocus possible with AF-S and AF-I Nikkor lenses
- New Front Cap BF-3A (can be used as body cap)

Lens construction: 5 elements in 5 groups
Dimensions: 66 x 24.5mm
Weight: 200g

AF-S Teleconverter TC-20E II

- New cosmetic design matches the latest AF-S Nikkor lenses
- Increases the original focal length by 100%
- Reduces lens aperture by two f-stops
- Autofocus possible with AF-S and AF-I Nikkors having maximum aperture of f/2.8
- New Front Cap BF-3A (can be used as body cap)

Lens construction: 7 elements in 6 groups
Dimensions: 66 x 55mm
Weight: 355g

AF-I Teleconverter TC-14E

- Designed for AF-S and AF-I Nikkor lenses
- Increases the original focal length by 40%
- Reduces lens aperture by one f-stop
- Autofocus possible with AF-S and AF-I Nikkor lenses

Lens construction: 5 elements in 5 groups
Dimensions: 66 x 24.5mm
Weight: 200g

AF-I Teleconverter TC-20E

- Designed for AF-S and AF-I Nikkor lenses
- Increases the original focal length by 100%
- Reduces lens aperture by two f-stops
- Autofocus possible with AF-S and AF-I Nikkors having maximum aperture of f/2.8

Lens construction: 7 elements in 6 groups
Dimensions: 66 x 55mm
Weight: 355g

AF Micro- and PC Micro-Nikkor Lenses

AF Micro-Nikkor 200mm f/4D IF-ED © Rod Planck

AF Micro-Nikkor 105mm f/2.8D © Conrad Godly

PC Micro-Nikkor 85mm f/2.8D (with tilting) © N. Yuasa

PC Micro-Nikkor 85mm f/2.8D (without tilting) © N. Yuasa

"In addition to the **exquisite sharpness** (a feature of all Micro-Nikkors), the 200mm AF Micro offers me almost four times the working distance of a 60mm Micro. The narrow angle of view is a **great aid** for simplifying backgrounds."

Rod Planck

AF Micro- and PC Micro-Nikkors — distinguishing features

For close-up photography without compromise, Micro-Nikkor lenses are the obvious choice for your Nikon SLR.

Each of the AF Micro-Nikkors offers f-stops down to **f/32**, and the PC Micro-Nikkor down to **f/45**; this permits maximum depth of field, so crucial for close-up and macro shooting. Plus, Nikon's Super Integrated Coating and Close-Range Correction system offer superior optical performance and colour reproduction.

The three fixed focal length AF Micro-Nikkors (**60mm f/2.8D, 105mm f/2.8D, 200mm f/4D IF-ED**) allow photographers to shoot **1:1 life-size close-ups** without any accessory.

The **AF Zoom Micro-Nikkor 70-180mm f/4.5-5.6D ED** adds remarkable flexibility to close-up photography. Aside from the obvious versatility of multiple focal lengths, this lens allows you to adjust perspective and reproduction ratios up to 1:1.3 as you zoom. The Optics Design Research Group of the Optics Society of Japan selected this lens as the Best Lens of 1998.

The **PC Micro-Nikkor 85mm f/2.8D** is equipped with a tilt/shift mechanism that lets photographers manipulate image perspective, distortion and focus. With **1:2 life-size** macro capability, this lens is ideal for commercial photographers who shoot tabletop product photos.

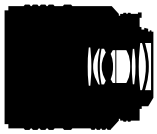
For absolute **clarity** and **sharpness** of detail.

■: ED glass elements
■: Aspherical lens elements

AF Micro-Nikkor 60mm f/2.8D GC D SC

Nikon's most compact Micro lens for close-up and general photography

- Versatile lens for macro photography
- Close-up to approx. 22cm (1:1 reproduction ratio)
- Close-Range Correction (CRC) system provides high performance at both near and far focusing distances

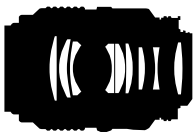


Lens construction: 8 elements in 7 groups
Closest focusing: 0.219m (8-3/4 in.)
Working distance*: 90.4mm **Filter attachment size:** 62mm **Hood:** HN-22
Dimensions: 70 x 74.5mm **Weight:** 440g

AF Micro-Nikkor 105mm f/2.8D GC D SC

Medium telephoto Micro lens for close-up and candid photography

- Versatile medium telephoto lens for portrait and detail work
- Close-up to approx. 31cm (1:1 reproduction ratio)
- Close-Range Correction (CRC) system



Lens construction: 9 elements in 8 groups
Closest focusing: 0.314m (1 ft.)
Working distance*: 136mm
Filter attachment size: 52mm **Hood:** HS-7
Dimensions: 75 x 104.5mm **Weight:** 560g

AF Micro-Nikkor 200mm f/4D IF-ED ED IF GC D SC

Telephoto Micro lens for close-ups and nature photography

- Extremely versatile telephoto lens with long working distance
- Close-up to approx. 50cm (1:1 reproduction ratio)
- 26cm working distance for easy close-ups
- Close-Range Correction (CRC) system
- Nine-blade rounded diaphragm
- ED glass elements

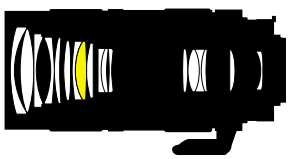
Lens construction: 13 elements in 8 groups
Closest focusing: 0.5m (1-5/8 ft.)
Working distance*: 260mm
Filter attachment size: 62mm **Hood:** HN-30
Dimensions: 76 x 193mm **Weight:** 1190g

AF Zoom-Micro Nikkor 70-180mm f/4.5-5.6D ED ED D SC

Note: When using Matrix or Centre-Weighted Metering with this lens attached to F4-series cameras, set the exposure compensation dial for focusing screens to –1/2.

The world's first AF zoom lens for macro photography

- Versatile telephoto zoom lens for macro photography
- Close-ups to approx. 37cm (1:1.3 reproduction ratio)
- Effective aperture does not vary with focus distance
- Nine-blade rounded diaphragm
- ED glass element
- Even life-size (1:1) magnification is possible with close-up attachment lens No. 6T (at 180mm)



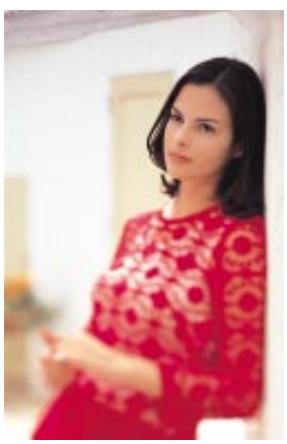
Lens construction: 18 elements in 14 groups
Closest focusing: 0.37m (1.2 ft.)
Working distance*: 112.4mm
Filter attachment size: 62mm **Hood:** HB-14 (Provided) **Dimensions:** 75 × 167mm
Weight: 1010g

PC Micro-Nikkor 85mm f/2.8D GC D SC

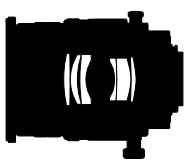
Note: The camera's exposure metering and flash control system do not work properly when shifting and/or tilting the lens, or when using an aperture other than the maximum aperture. Shifting and/or tilting the lens to a large degree can cause some vignetting. This lens cannot be used with the Nikon PRONEA S camera.

85mm medium telephoto lens with tilt/shift mechanism and macro capability

- Wide tilting and shifting range (tilt: ±8.3°, shift: ±12.4mm)
- 1/2 life-size macro shooting capability (at 0.39m)
- ±90° lens revolving capability for versatile tilt/shift effects.



Only the subject's face is in focus. (with tilting)



Lens construction: 6 elements in 5 groups
Closest focusing: 0.39m (1.3 ft.)
Working distance*: 210mm
Filter attachment size: 77mm **Hood:** HB-22
Dimensions: 83.5 × 109.5mm
Weight: 770g

***Working distance** is the distance between the front of the lens and the subject. It is desirable to have a longer free working distance for close-up work due to lighting and subject considerations.

Choosing the right lens — some points to consider

Selecting which lens to purchase is one of the most important decisions you can make as a photographer, for the lens often determines both what and how you can shoot. Below, we've outlined a range of technical factors to consider when searching for the lens that's right for you.


16mm


20mm


24mm


28mm


35mm


50mm


105mm


135mm


180mm


210mm


300mm


600mm

Picture angle Picture angle refers to the view or image area the lens provides, and different picture angles can dramatically affect the way you view the world through your lens.

Basically, it is the focal length of the lens that determines the picture angle — the shorter the focal length, the wider the picture angle and the smaller the image size. A longer focal length means a narrower picture angle and larger image size. For example, a 50mm normal lens is so called because it gives a 46˚ picture angle for images that are about the same size with that of the human eye.

Accordingly, wideangle lenses offer broader views and are the favourite lenses of landscape photographers and those who shoot in tight interior spaces. Telephoto lenses pull in distant subjects and scenes, for a narrower picture angle that can provide dramatic close-ups for many types of photography.


20mm


50mm


200mm


400mm

Perspective Perspective is a phenomenon that is easier to understand by example than explanation and is wholly determined by the camera-to-subject distance (see photos, above).

In short, perspective is the relative size and depth of subjects within a picture; that is, how far the foreground and background appear to be separated from each other. If foreground objects appear much larger than those in the background — which occurs when using wideangle lenses — this is called exaggerated perspective.

Understanding the different perspectives offered by different lenses will help in choosing which lens to use to create certain photographic effects.

Maximum aperture (f-number) The maximum aperture of the lens can determine how and in what lighting situations you can shoot. Aperture value is indicated by f-number which can be expressed in various ways: f/8, F8 and 1:8, for example, all refer to the same effective aperture. Lenses with large maximum apertures (smaller f-numbers) are 'fast' lenses that allow photographers to use faster shutter speeds in dim light. This minimises the need for a tripod or flash, allows greater depth-of-field control (see below) and offers a brighter image through the lens finder for easier focusing.

Lenses with smaller maximum apertures (larger f-numbers) allow the use of lower shutter speeds for available light but are also lighter and smaller than faster lenses. Nikon offers some Nikkor lenses with equal focal lengths, but different maximum apertures to give you a variety from which to choose.

Depth of field This term refers to the areas of the photograph — both in front of and behind the main subject — that are acceptably sharp. You can adjust depth of field by adjusting the lens aperture. The smaller the aperture (larger f-number) gives you a greater depth of field. This means that shooting at larger apertures like f/1.8 will make the background appear blurred, while using small apertures like f/16 or f/22 will result in a picture where much of the scene is in sharp focus.

Focal length is also important, for the depth of field decreases as the lens' focal length increases. Thus, wideangle lenses offer inherently more depth of field along the entire focal length while telephoto lenses have less.


Great depth of field (f/16)

Shallow depth of field (f/2.8)

Lens	Lens Construction (groups/elements)	Picture Angle	Minimum f/Stop	Closest Marked Focus Distance [Macro Setting] m (ft.)	Maximum Reproduction Ratio [Macro Setting]	Filter Attachment Size (mm)	Lens Case	Lens Hood	Weight (g)	Dia. x Length (extension from lens mount) (mm)	TC-201	TC-301	TC-14A	TC-14B	TC-14E/14E II	TC-20E/20E II	AF-3	Max. number of HN-36 hoods usable	AF-4	Max. number of HN-37 hoods usable
Zoom																				
AF-S 17-35/2.8D IF-ED	10/13	104°-62°	22	0.28 (0.9)	1/4.6	77	CL-S3, CL-76	HB-23	745	82.5 x 106	①	—	①	—	—	—	✔*c	0	✔	0
AF 18-35/3.5-4.5D IF-ED	8/11	100°-62°	22	0.33 (1.1)	1/6.7	77	CL-S1	HB-23	370	82.7 x 82.5	①	—	①	—	—	—	✔*c	0	✔	0
AF 24-50/3.3-4.5D	9/9	84°-46°	22	0.6 (2) [0.5 (1.6)]	1/10.6 [1/8.5]	62	CL-S1, CL-17, CL-32S	HB-3	355	67.5 x 74.1	①	—	①	—	—	—	✔	0	✔	0
AF 24-85/2.8-4D IF	11/15	84°-28°30'	22	0.5 (1.6) [0.21 (0.7)]	1/5.9 [1/2]	72	CL-S1	HB-25	545	78.5 x 82.5	①	—	①	—	—	—	✔*c	0	✔	0
AF-S 24-85/3.5-4.5G IF-ED	12/15	84°-28°30'	22	0.38 (1.25)	1/4.7	67	CL-S2	HB-28	415	73 x 72.5	—	—	—	—	—	—	✔	0	✔	0
AF 24-120/3.5-5.6D IF	11/15	84°-20°30'	22	0.5 (2)	1/4.8	72	CL-S1, CL-49	HB-11	550	79 x 80	①	—	①	—	—	—	✔	0	✔	0
AF-S 28-70/2.8D IF-ED	11/15	74°-34°20'	22	0.7 (2.3) [0.5 (1.7)]	1/8.6 [1/5.6]	77	CL-S1, CL-32S	HB-19	935	88.5 x 121.5	④	—	④	—	—	—	✔*c	0	✔	0
AF 28-80/3.3-5.6G	6/6	74°-30°10'	38	0.35 (1.1)	1/3.4	58	CL-S1, CL-32S	HB-20	195	66.5 x 64	—	—	—	—	—	—	✔	0	✔	0
AF 28-100/3.5-5.6G	6/8	74° -24°20'	22	0.56 (1.8)	1/4.8	62	CL-S2, CL-32S	HB-27	245	68 x 80	—	—	—	—	—	—	✔	0	✔	0
AF 28-105/3.5-4.5D IF	12/16	74°-23°20'	22	0.5 (1.7) [0.22 (0.7)]	1/5.2 [1/2]	62	CL-S2, CL-49	HB-18	455	73 x 81.5	①	—	①	—	—	—	✔	0	✔	0
AF 28-200/3.5-5.6D IF	13/16	74°-12°20'	22	2 (7) [0.85-1.5 (2.8-4.9)*4]	1/12.7 [1/9.9]	72	CL-S3, CL-49	HB-12	520	78 x 86.5	①	—	①	—	—	—	✔*c	0	✔	0
AF 35-70/2.8D	12/15	62°-34°20'	22	0.6 (2) [0.28 (0.9)]	1/7.7 [1/4]	62	CL-S2, CL-33S	HB-1	665	71.5 x 94.5	①	—	①	—	—	—	✔	1	✔	2
AF-S VR 70-200/2.8G IF-ED	15/21	34°20'-12°20'	22	1.5 (5)	1/6.1	77	CL-M2	HB-29	1470	87 x 215	—	—	—	—	①	①	✔	0	✔	2
AF 70-300/4-5.6D ED	9/13	34°20'-8°10'	32	1.5 (5)	1/3.9	62	CL-S4, CL-72	HB-15	505	74 x 116	①	—	①	—	—	—	✔	3	✔	4
AF 70-300/4-5.6G	9/13	34°20'-8°10'	22	1.5 (4.9)	1/3.9	62	CL-S4, CL-72	HB-26	425	74 x 116.5	—	—	—	—	—	—	✔	3	✔	4
AF-S 80-200/2.8D IF-ED*1	14/18	30°10'-12°20'	22	1.5 (4.9)	1/6.3	77	CL-M2, CL-73	HB-17	1580	88 x 207	④	—	—	①	②	②	✔*c	0	✔	2
AF 80-200/2.8D ED*1	11/16	30°10'-12°20'	22	1.8 (6) [1.5 (4.9)]	1/7.1 [1/5.9]	77	CL-M2, CL-43A	HB-7	1300	87 x 187	④	—	④	①	—	—	✔	0	✔	3
AF VR 80-400/4.5-5.6D ED*1	11/17	30°10'-6°10'	32	2.3 (7.5)	1/4.8	77	CL-M1	HB-24	1340	91 x 171	④	—	④	—	—	—	✔	2	✔	3
Fisheye																				
AF Fisheye 16/2.8D	5/8	180°	22	0.25 (0.85)	1/10	Provided	CL-S1, CL-31S	Built-in	290	63 x 57	①	—	①	—	—	—		Not usable		
Wideangle																				
AF 14/2.8D ED	12/14	114°	22	0.2 (0.66)	1/6.5	Provided	CL-S2	Built-in	670	87 x 86.5	①	—	①	—	—	—		Not usable		
AF 18/2.8D	10/13	100°	22	0.25 (0.85)	1/9.1	77	CL-S1, CL-47	HB-8	380	82 x 58	①	—	①	—	—	—	✔*a	0	✔	0
AF 20/2.8D	9/12	94°	22	0.25 (0.85)	1/8.3	62	CL-S1, CL-30S, CL-37	HB-4	270	69 x 42.5	①	—	①	—	—	—	✔*b	0	✔	0
AF 24/2.8D	9/9	84°	22	0.3 (1)	1/8.9	52	CL-S1, CL-30S, CL-34A	HN-1	270	64.5 x 46	①	—	①	—	—	—	✔	0	✔	1
AF 28/1.4D	8/11	74°	16	0.35 (1.15)	1/8.3	72	CL-S1, CL-44	HK-7	520	75 x 77.5	①	—	①	—	—	—	✔	0	✔	1
AF 28/2.8D	6/6	74°	22	0.25 (0.85)	1/5.6	52	CL-S1, CL-30S, CL-34A	HN-2	205	65 x 44.5	①	—	①	—	—	—	✔	0	✔	1
AF 35/2D	5/6	62°	22	0.25 (0.85)	1/4.2	52	CL-S1, CL-30S	HN-3	205	64.5 x 43.5	①	—	①	—	—	—	✔	0	✔	2
Normal																				
AF 50/1.4D	6/7	46°	16	0.45 (1.5)	1/6.8	52	CL-S1, CL-30S	HR-2	230	64.5 x 42.5	③	—	③	—	—	—	✔	1	✔	3
AF 50/1.8D	5/6	46°	22	0.45 (1.5)	1/6.6	52	CL-S1, CL-30S	HR-2	155	63.5 x 39	①	—	①	—	—	—	✔	1	✔	3
Telephoto																				
AF 85/1.4D IF	8/9	28°30'	16	0.85 (3)	1/8.8	77	CL-S1, CL-44	HN-31	550	80 x 72.5	①	—	①	—	—	—	✔	1	✔	3
AF 85/1.8D	6/6	28°30'	16	0.85 (3)	1/9.2	62	CL-S1, CL-15S, CL-31S	HN-23	380	71.5 x 58.5	①	—	⑤	—	—	—	✔	2	✔	4
AF DC 105/2D	6/6	23°20'	16	0.9 (3)	1/7.7	72	CL-S3, CL-38	Built-in	640	79 x 111	—	—	—	—	—	—	✔	1	✔	5
AF DC 135/2D	6/7	18°	16	1.1 (4)	1/7.1	72	CL-S4, CL-38	Built-in	815	79 x 120	—	—	—	①	—	—	✔	1	✔	4
AF 180/2.8D IF-ED	6/8	13°40'	22	1.5 (5)	1/6.6	72	CL-S4, CL-38	Built-in	760	78.5 x 144	④	—	④	—	—	—	✔	5	✔	5
AF 300/2.8 IF-ED*1	6/8	8°10'	22	3 (10)	1/7.0	39	CT-303	Built-in, HE-6	2700	133 x 255	④	①	④	①	—	—		Not usable		
AF-S 300/2.8D IF-ED II*1	8/11	8°10'	22	2.3 (7.5)	1/6.2	52	CT-305, CL-L1	HK-26	2560	124 x 268.5	—	①	—	①	②	②		Not usable		
AF-S 300/4D IF-ED*1	6/10	8°10'	32	1.45 (4.8)	1/3.7	77	CL-M2	Built-in	1440	90 x 222.5	—	①	—	①	②	①	✔	2	✔	5
AF-S 400/2.8D IF-ED II*1	9/11	6°10'	22	3.5 (11.5)	1/7.7	52	CT-402, CL-L2	HK-25	4400	159.5 x 351.5	—	①	—	①	②	②		Not usable		
AF-S 500/4D IF-ED II*1	9/11	5°	22	4.6 (15.1)	1/8.3 [1/7.7]	52	CT-502, CL-L2	HK-24	3430	139.5 x 394	—	①	—	①	②	①		Not usable		
AF-S 600/4D IF-ED II*1	7/10	4°10'	22	5.6 (18.4)	1/8.3	52	CT-606, CL-L2	HK-23	4750	166 x 430.5	—	①	—	①	②	①		Not usable		
Special Purpose																				
AF Micro 60/2.8D	7/8	39°40'	32	0.219 (8 3/4 in.)	1	62	CL-S1, CL-32S	HN-22	440	70 x 74.5	①	—	①	—	—	—	✔	1	✔	3
AF Micro 105/2.8D	8/9	23°20'	32	0.314 (1)	1	52	CL-S3, CL-15S	HS-7	560	75 x 104.5	⑤	—	—	—	—	—	✔	3	✔	5
AF Micro 200/4D IF-ED*1	8/13	12°20'	32	0.5 (1 5/8)	1	62	CL-M2, CL-45	HN-30	1190	76 x 193	—	—	—	—	—	—	✔	5	✔	5
AF Micro 70-180/4.5-5.6D ED*1	14/18	34°20'-13°40'	32	0.37 (1.2)	1/1.32	62	CL-M1, CL-71	HB-14	1010	75 x 167	①	—	①	—	—	—	✔	2	✔	3
AF-S & AF-I Teleconverters*2																				
TC-14E II/14E	5/5	—	—	—	—	—	CL-S1, CL-30S	—	200	66 x 24.5	—	—	—	—	—	—	—	—	—	—
TC-20E II/20E*3	6/7	—	—	—	—	—	CL-S1, CL-31S	—	355	66 x 55	—	—	—	—	—	—	—	—	—	—

*1 Tripod mounting collar is provided.
*2 Compatible with AF-S and AF-I lenses except AF-S 17-35mm f/2.8D IF-ED, AF-S 24-85mm f/3.5-4.5G IF-ED and AF-S 28-70mm f/2.8D IF-ED.
*3 Autofocusing is possible only with an AF-S or AF-I Nikkor lens having a maximum aperture of f/2.8.
*4 0.85m (2.8 ft.) at 28mm or 1.5m (4.9 ft.) at 200mm.

① Usable.
② Usable. Autofocusing is possible.
③ When used at smaller aperture than f/11 with high shutter speeds, there is occasional uneven exposure.
④ Usable, but there is occasional vignetting.
⑤ There is occasional vignetting. And when used at smaller aperture than f/11 with high shutter speeds, there is occasional uneven exposure.
— Not usable.

✔ Usable.
*a Vignetting occurs.
*b Slight vignetting occurs.
*c Vignetting will occur only in certain situations.

Note: Lens hood names indicate type: HN for Screw-in, HR for Rubber Screw-in, HK for Slip-on, HS for Snap-on, and HB for Bayonet.

A versatile and unique selection of lenses

Nikon offers a wide array of manual-focus lenses ranging from the ultrawideangle **15mm** to the powerful **1000mm Reflex** and unique **PC-type Nikkor**.

Manual-focus Lenses

Nikkor 85mm f/1.4 © Paolo Patrizi

PC-Nikkor lens
PC or "Perspective Control" Nikkor is essential lens for architectural and interior photography. The PC-Nikkor 28mm f/3.5 lens provides perspective control for your Nikon SLR. It offers 11mm off-axis and 360° rotation.

P-Type Nikkor lens
Both the 45mm f/2.8 P and 500mm f/4 P IF-ED have a built-in CPU (Central Processing Unit) for the advanced automatic exposure features found in the most recent Nikon SLRs.

Reflex-Nikkor lenses
Reflex-Nikkors employ a combination of mirrors and lens elements based on catadioptric (mirror-reflex) telescopes. The 500mm f/8 and 1000mm f/11 are both designed compact and lightweight.

Lens	Lens Construction (groups/elements)	Picture Angle	Minimum f/Stop	Closest Marked Focus Distance [Macro Setting] m (ft.)	Maximum Reproduction Ratio [Macro Setting]	Filter Attachment Size (mm)	Lens Case	Lens Hood	Weight (g)	Dia. x Length (extension from lens mount) (mm)	TC-201	TC-301	TC-14A	TC-14B	AF-3	Max. number of HN-36 hoods usable	AF-4	Max. number of HN-37 hoods usable
Wideangle																		
15/3.5*1	11/14	110°	22	0.3 (1)	1/12.5	Provided	CL-S2, CL-17	Built-in	630	90 x 83.5	①	—	①	—	Not usable			
18/3.5*1	10/11	100°	22	0.25 (0.85)	1/8.3	72	CL-S1, CL-34A, CL-37	HK-9	350	75 x 61.5	①	—	③	—	✔*a	0	✔	0
20/2.8*1	9/12	94°	22	0.25 (0.85)	1/8.3	62	CL-S2, CL-30S	HK-14	260	65 x 42.5	①	—	①	—	✔*b	0	✔	0
24/2*1	10/11	84°	22	0.3 (1)	1/8.6	52	CL-S1, CL-31S, CL-34A	HK-2	300	63 x 51.5	①	—	①	—	✔	0	✔	1
24/2.8*1	9/9	84°	22	0.3 (1)	1/8.8	52	CL-S1, CL-30S, CL-34A	HN-1	275	63 x 46	①	—	①	—	✔	0	✔	1
28/2*1	8/9	74°	22	0.25 (0.9)	1/5.4	52	CL-S1, CL-31S, CL-32S	HN-1	345	63 x 58.5	①	—	①	—	✔	0	✔	1
28/2.8*1	8/8	74°	22	0.2 (0.7)	1/3.9	52	CL-S1, CL-30S, CL-34A	HN-2	250	63 x 44.5	①	—	①	—	✔	0	✔	1
35/1.4*1	7/9	62°	16	0.3 (1)	1/5.6	52	CL-S1, CL-31S, CL-32S	HN-3	400	67.5 x 62	②	—	②	—	✔	0	✔	1
35/2	6/8	62°	22	0.3 (1)	1/5.7	52	CL-S1, CL-31S, CL-32S	HN-3	280	63 x 51.5	①	—	①	—	✔	0	✔	1
45/2.8 P	3/4	50°	22	0.45 (2)	1/7.6	52	Soft pouch type provided	HN-35	120	63 x 17	—	—	—	—	✔	3	✔	4
Normal																		
50/1.2	6/7	46°	16	0.5 (1.7)	1/7.9	52	CL-S1, CL-31S, CL-34A	HS-12, HR-2	360	68.5 x 47.5	①	—	①	—	✔	1	✔	2
50/1.4	6/7	46°	16	0.45 (1.5)	1/6.8	52	CL-S1, CL-30S	HS-9, HR-1	250	63 x 40	②	—	②	—	✔	1	✔	3
50/1.8	5/6	46°	22	0.6 (2)	1/9.6	52	CL-30S	HR-4, HS-11	145	63 x 27.5	①	—	①	—	✔	2	✔	3
Telephoto																		
85/1.4*1	5/7	28°30'	16	0.85 (3)	1/7.9	72	CL-S2	HN-20	620	80.5 x 64.5	②	—	②	—	✔	1	✔	3
105/1.8	5/5	23°20'	22	1 (3.5)	1/7.6	62	CL-S1, CL-15S	Built-in	580	78.5 x 80.5	②	—	②	—	✔	1	✔	3
105/2.5	4/5	23°20'	22	1 (3.5)	1/7.7	52	CL-S1, CL-32S	Built-in	435	64 x 69.5	①	—	③	—	✔	3	✔	5
135/2	4/6	18°	22	1.3 (4.5)	1/7.5	72	CL-S2, CL-15S	Built-in	860	80.5 x 93.5	②	—	②	—	✔	1	✔	4
135/2.8	4/5	18°	32	1.3 (4.5)	1/7.5	52	CL-S1, CL-32S	Built-in	435	64 x 83.5	③	—	①	①	✔	3	✔	5
180/2.8 ED	5/5	13°40'	32	1.8 (6)	1/7.5	72	CL-S4, CL-38	Built-in	800	78.5 x 130	②	—	②	—	✔	2	✔	5
200/2 IF-ED*2	8/10	12°20'	22	2.5 (9)	1/9.5	Gelatine filter	CT-200	Built-in, HE-4	2550	132 x 225.5	②	—	④	②	Not usable			
300/2.8 IF-ED*2	6/8	8°10'	22	3 (10)	1/8.3	39	CT-302	Built-in, HE-4	2400	132 x 255	③	①	③	①	Not usable			
400/2.8 IF-ED*2	6/8	6°10'	22	4 (15)	1/8.3	52	CT-400	Built-in, HE-3	5150	163 x 378.5	④	②	—	②	Not usable			
400/3.5 IF-ED*2	6/8	6°10'	22	4.5 (15)	1/9.8	122/39*4	CL-61A	Built-in	2800	134 x 296	—	①	③	①	Not usable			
500/4 P IF-ED*2	6/8	5°	22	5 (20)	1/9.1	39	CT-500	HK-17	3000	138 x 384	—	①	—	①	Not usable			
600/5.6 IF-ED*2	6/7	4°10'	32	5 (20)	1/7.3	39	CT-603	Built-in, HE-4	2800	132 x 387.5	—	①	—	①	Not usable			
800/5.6 IF-ED*2	6/8	3°	32	8 (30)	1/9.1	52	CT-800	Built-in, HE-3	5450	163 x 546	—	②	—	②	Not usable			
Reflex																		
500/8*2	6/6	5°	—	1.5 (5)	1/2.5	82/39*4	CL-39	HN-27	840	89 x 109	③	—	③	⑤	Not usable		✔	5
1000/11*2	5/5	2°30'	—	8 (25)	1/7.1	39	CL-29	Built-in	1900	119 x 233.5	③	⑤	—	⑤	Not usable			
Zoom																		
28-85/3.5-4.5	11/15	74°-28°30'	22	0.8 (3) [0.23 (0.8)]	1/8.3 [1/3.4]	62	CL-S1, CL-33S	HK-16	510	67 x 89	①	—	①	—	✔	0	✔	0
35-70/3.3-4.5	7/8	62°-34°20'	22	0.5 (2) [0.35 (1)]	1/6.7 [1/4.3]	52	CL-S1, CL-31S	HN-2	250	63 x 61	①	—	①	—	✔	0	✔	1
35-105/3.5-4.5	12/16	62°-18°	22	1.4 (5) [0.27 (0.9)]	1/11.6 [1/4]	52	CL-S1, CL-33S	HK-11	510	64 x 86.5	①	—	①	—	✔	0	✔	0
35-200/3.5-4.5	13/17	62°-12°20'	22	1.6 (5.5) [0.3 (1)]	1/7 [1/4]	62	CL-S3, CL-13A	HK-15	740	70 x 119	③	—	—	—	✔	0	✔	1
70-210/4.5-5.6	8/11	34°20'-11°50'	32	1.5 (5)	1/6	52	CL-38	HR-1	375	64 x 104	①	—	①	—	✔	2	✔	3
Special Purpose																		
PC 28/3.5*3	8/9	74°	22	0.3 (1)	1/6.7	72	CL-S2, CL-34A	HN-9	380	78 x 64.5	—	—	—	—	✔*c	0	✔	0
PC Micro 85/2.8D*5	5/6	28°30'	45	0.39 (1.3)	1/2	77	CL-75	HB-22	770	83.5 x 109.5	—	—	—	①	✔*c	0	✔	0
Micro 55/2.8*1	5/6	43°	32	0.25 (0.9)	1/2	52	CL-S1, CL-31S, CL-32S, CL-33S*6, CL-15S*6	HN-3	290	63.5 x 62	①	—	①	—	✔	1	✔	3
Micro 105/2.8*1	9/10	23°20'	32	0.41 (1.34)	1/2	52	CL-S4, CL-32S, CL-33S, CL-38*7	HS-14	515	66.5 x 83.5	①	—	①	—	✔	3	✔	5
Micro 200/4 IF*2	6/9	12°20'	32	0.71 (2.34)	1/2	52	CL-S4, CL-36, CL-45	Built-in	800	66 x 172	—	①	③	①	✔	2	✔	5
Teleconverters																		
TC-201	5/7	—	—	—	—	—	CL-S1, CL-30S	—	230	64.5 x 52	—	—	—	—	—	—	—	—
TC-301	5/5	—	—	—	—	—	CL-S1, CL-33S	—	325	64.5 x 115	—	—	—	—	—	—	—	—
TC-14A	5/5	—	—	—	—	—	CL-S1, CL-30S	—	145	65 x 25.5	—	—	—	—	—	—	—	—
TC-14B	5/5	—	—	—	—	—	CL-S1, CL-30S	—	165	65 x 34	—	—	—	—	—	—	—	—
Photographic Attachment	3/5	—	—	—	—	—	CL-S1	—	200	65.4 x 56	—	—	—	—	—	—	—	—

*1 Features Close-Range Correction (CRC) system.
*2 Tripod mounting collar is provided.
*3 Manual-type diaphragm with preset ring.
*4 Front filter / rear filter.
*5 The camera's exposure metering and flash control system do not work properly when shifting and/or tilting the lens, or when using an aperture other than the maximum aperture.
Shifting and/or tilting the lens to a large degree can cause some vignetting.
This lens cannot be used with the Nikon PRONEA S camera.
*6 With a PK-13 ring.
*7 With a PN-11 ring.

① Usable.
② When used at smaller aperture than f/11 with high shutter speeds, there is occasional uneven exposure.
③ Usable, but there is occasional vignetting.
④ There is occasional vignetting. And when used at smaller aperture than f/11 with high shutter speeds, there is occasional uneven exposure.
⑤ Usable if the rear screw-in filter is removed.
— Not usable.

✔ Usable.
*a Vignetting occurs.
*b Slight vignetting occurs.
*c Vignetting will occur only in certain situations.

Suggested Equipment Combinations

For Professionals

1. Sports

F5, F100 and/or D1H
AF-S VR 70-200mm f/2.8G IF-ED
AF-S 300mm f/2.8D IF-ED II
AF-S 400mm f/2.8D IF-ED II
AF-S 500mm f/4D IF-ED II
AF-S Teleconverters

2. Nature

F5, F100, D1x and/or D100
SB-80DX AF Speedlight
SB-29s TTL Macro Speedlight
AF-S 17-35mm f/2.8D IF-ED
AF-S 28-70mm f/2.8D IF-ED
AF-S VR 70-200mm f/2.8G IF-ED
AF-S 300mm f/2.8D IF-ED II
AF Micro 200mm f/4D IF-ED
AF Micro 70-180mm f/4.5-5.6D ED

3. Portraits

F5, F100, D1x and/or D100
SB-80DX AF Speedlight
Power Bracket SK-6A
AF 85mm f/1.4D IF
AF DC 105mm f/2D
AF DC 135mm f/2D
AF-S VR 70-200mm f/2.8G IF-ED
AF-S 300mm f/2.8D IF-ED II

For Advanced Amateurs

F100, F80 and/or D100
SB-80DX AF Speedlight
TTL Remote Cord SC-17
AF 85mm f/1.8D
AF Micro 105mm f/2.8D
AF 18-35mm f/3.5-4.5D IF-ED
AF-S 24-85mm f/3.5-4.5G IF-ED
AF 80-200mm f/2.8D ED
AF-S 300mm f/4D IF-ED

For Beginners/Amateurs

F80, F65 and/or F55
SB-50DX AF Speedlight
Standard zooms like
AF 28-100mm f/3.5-5.6G or
AF 24-120mm f/3.5-5.6D IF
Telephoto zooms like
AF 70-300mm f/4-5.6G or
AF 70-300mm f/4-5.6D ED
AF Micro 60mm f/2.8D
AF 85mm f/1.8D

Accessories for Nikkor Lenses

Filters

Lens filters can provide specific colour tone to help you achieve creative effects. Nikon offers a variety of filters including soft, polarizing, and neutral density. All feature special coating to eliminate surface reflection.

Filters for Colour Photography

Amber A2, A12
Amber filters correct the bluish coloration that sometimes affects daylight film.

Blue B2, B8, B12
Blue filters subtract red and thus cool down coloration.

Filters for B&W Photography

Yellow Y44, Y48, Y52
Yellow filters absorb both blue and ultraviolet light so that skies appear darker in B&W prints.

Orange O56
The O56 subtracts green as well as blue and ultraviolet.

Red R60
This filter subtracts all colours of the spectrum except red.

Green X0, X1
Green filters subtract red and blue, and allow green and yellow to pass through.

Filters for Colour and B&W Photography

Ultraviolet L37C, L39
Skylight L1BC
Ultraviolet light can reduce contrast and detail in photos. The colourless UV filters produce sharper, non-hazy B&W photography, and correct the blue or violet tints that may occur with colour film. The L37C is multilayer-coated to further reduce reflection. The L39 is good for B&W photography of mountain orbeach scenes. The multilayer-coated Skylight L1BC also cuts UV light, and like the other UVfilters, can be used to protect the lens.

Neutral Density ND2S, ND4, ND4S, ND8S, ND400
ND filters subtract all light equally, so they have no effect on colour balance, but instead

reduce the amount of light entering the camera. They are used to control depth of field by allowing a larger aperture without changing the shutter speed. They also prevent overexposure in extremely bright light and when shooting beyond the aperture/shutter speed range possible with the film speed in use. For shooting the sun, the strongest ND400 is recommended.

Soft Focus Filters No. 1, No. 2

Soft focus filters come in three sizes — 52mm, 62mm or 72mm — to fit the front thread of a Nikkor lens. Filter No. 1 is good for portraits, giving a "romantic" haze to images. Filter No. 2 is stronger and produces a fog-like effect in landscapes, or highlights a small subject surrounded by dark space.

Circular Polarizing Filters

Available in 46mm, 52mm, 62mm, 72mm and 77mm attachment sizes. By reducing the light reflected from nonmetallic surfaces, these filters allow direct shooting through glass windows and reduce glare from water surfaces and sunlit trees and grass. They are the only filters that darken the sky in colour photography without affecting colour balance. They come in a rotating mount to enable different angles for different degrees of polarization. They do not interfere with the autofocus or auto-exposure operation of the Nikon AF SLRs.

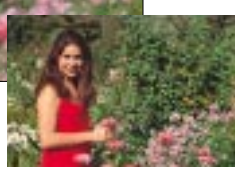
Slip-in Circular Polarizing Filters

Designed for telephoto lenses equipped with a slip-in filter holder, these filters offer the same features as Nikon's standard circular polarizing filters.

Neutral Colour NC Filters

Available in 39mm, 46mm, 52mm, 58mm, 62mm, 72mm and 77mm attachment sizes, these neutral-colour filters serve as lens protectors. They do not affect colour balance. In addition, multilayer-coating prevents light reflection, thus improving colour rendition.

Soft Focus Filter



Without filter

Circular Polarizing Filter

Without filter

Close-up Accessories

Auto Extension Rings PK and PN

Compact, lightweight and easy to attach, these rings — PK-11A, PK-12, PK-13 and PN-11 — offer a wide range of reproduction ratios. They fit between the camera body and lens either isolated or in combination.

Close-up Attachment Lenses

Nikon's close-up attachment lenses screw directly into the front thread of the lens — offering a simple, convenient way to increase magnification without affecting exposure control and TTL metering. They are treated with Nikon Integrated Coating for improved image contrast and reduced flare.

Tripod Mounting Spacer

AH-5 for the PC Micro-Nikkor 85mm f/2.8D

When using a tripod with the PC Micro-Nikkor 85mm f/2.8D, the AH-5 provides space between the camera body and tripod for smoother tilt/shift operation.

Photographic Attachment

This attachment lets you transform Nikon Fieldscopes III/III A/EDIII/EDIII A into an 800mm f/12.8 (1,000mm f/13.3 with the ED78/ED78A) supertelephoto lens.

Lens Hoods

Lens hoods minimise stray light, helping reduce flare and eliminate "ghost" images; they also protect the lens.

Lens Caps

Made of hard plastic, metal or leather, these caps protect the front and rear portions of the lens from dust, smudges and scratches. Front lens caps are available in the following attachment sizes: 52mm, 58mm, 62mm, 72mm, 77mm, 85mm, 95mm, 108mm. Rear Lens Cap LF-1 is compatible with all lenses.

Lens Strap

The lens strap LN-1 is easily adjustable for carrying various telephoto lenses, even large, heavy ones, comfortably on a shoulder. Compatible with autofocus lenses: AF-S 300/2.8D, AF-S/AF-I 400/2.8D, AF-S 500/4D and AF-S 600/4D; and manual lenses: 200/2, 300/2.8, 400/2.8, 400/3.5, 500/4 P, 600/5.6, 800/5.6 and 50~300/4.5.

Lens Cases

Nikon lens cases keep your fine optical equipment safe from dust, dampness and shocks.

Cylindrical Case (CL): The handsome black leatherette finish is complemented by soft, plush lining.

Trunk Case (CT): A durable trunk case is supplied with larger lenses including fast supertelephoto lenses.

Soft Pouch (No. 58-62, CL-S1~S4/M1/M2/L1/L2):

Accommodates a variety of lenses of different focal lengths.

LN-1

CT-402

No. 58

CL-46

CL-M1

CL-M2

CL-L1

CL-S1

CL-S2

CL-S3

CL-S4

CL-L2

Sue Bennett (U.S.A.)
Sue Bennett is one of the most active commercial photographers in the U.S. Clients include advertising agencies and editorial publications in Europe and the U.S. Bennett has received many awards for both commercial and personal work including *Communication Arts* and *Graphis Photo Annuals*.

Dave Black (U.S.A.)
Dave Black is a leading sports photographer. His images have appeared in *Sports Illustrated, Newsweek*, and *Time*. His main subjects are professional and world-class athletes, and he has photographed the summer and winter Olympic Games since 1984.

Conrad Godly (Switzerland)
Conrad Godly is an important presence in fashion and commercial photography. His work regularly appears in many international fashion magazines. His first book Untitled Nudes was published in 1997.

Frans Lanting (Netherlands)
Frans Lanting is regarded as one of the world's leading nature photographers. His work is featured regularly in *National Geographic, GEO, Life,* and many other leading magazines. He has received numerous prestigious honours for his photographs which have been the subject of major exhibits in museums worldwide.

Joe McNally (U.S.A.)
Former *LIFE* magazine staff photographer Joe McNally maintains a busy schedule publishing in *Time, National Geographic, Sports Illustrated* and many other magazines. McNally has been honoured by *World Press Photo, Pictures of the Year*, and was recently inducted into the Kodak and Photo District News' *Legends Online* archive.

Darcy Padilla (U.S.A.)
Darcy Padilla is a documentary photographer whose work has appeared in such publications as *LIFE* magazine, *Graphis*, the *New York Times*, *Harpers Bazaar*, *Latina* magazine and many others. Padilla has also been awarded a John Simon Guggenhem Fellowship and an Open Society Individual Fellowship from the Soros Foundation.

Paolo Patrizi (Italy)
Paolo Patrizi specialises in portraiture and social documentary photography. His work has been exhibited internationally and featured in such publications as *The Observer Life Magazine*. One of his ongoing projects depicts people's devotion to religious pilgrimages and festivals.

Rod Planck (U.S.A.)
Rod Planck has been a professional nature photographer for over 20 years. His work has been featured in several books and many major publications including *Sports Illustrated, Audobon and Natural History.*

John Shaw (U.S.A.)
Internationally acclaimed nature photographer John Shaw has published work in a variety of magazines such as *Outdoor Photographer*, *National Wildlife* and *Natural History*. He has also written five instructional books on photography.

Yu Yuntian (People's Republic of China)
Yu Yuntian is one of China's leading photographers and arts educators. He has participated in many international arts and cultural events, and in 1989 was the first recipient of China's Gold Statue award for photographic excellence.

Samuel Zuder (Germany)
Samuel Zuder specialises in social and cultural photojournalism. His photographs appear in such magazines as *Merian, Geo, Allegra* and *Cosmopolitan*. One of his ongoing projects details the effects of war on civilian populations.

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  Category A — Free subject
  Category B — "Love & Peace"
- Application period:
  Print/Slide Division: May 1, 2002 - Oct. 31, 2002
  Web Entry Division: July 1, 2002 - Oct. 31, 2002

For more details:
http://www.nikon-image.com/eng/npci

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⚠ **WARNING** | TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

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