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Nikon 200mm f/4

AF-MICRO NIKKOR (1993-today)

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Nikon 200mm Macro (62mm filters, 41.6 oz./1,180g). [enlarge](#). I'd get mine at [Adorama](#) or [B&H Photo-Video](#). It helps me keep adding this site when you get yours from these links, thanks!

August 2008 [More Nikon Reviews](#) [Nikon Lens Reviews](#)

[Nikon 200mm Lens Center Sharpness Compared](#)

[Nikon 200mm Corner Sharpness Compared](#)

Other Nikon 200mm f/4 lenses (all manual focus):

[200mm f/4 AI-s Micro-NIKKOR \(1978-2005\)](#) (1978-2005)


[200mm f/4 AI-s](#) (1981-1996)


[200mm f/4 AI](#) (1977-1981)


[200mm f/4 Q](#) (1961-1976)

Optics:  Optical perfection.

Ergonomics:  Must move a switch for AF or MF.

Usefulness:  World's best macro and tele.

Availability:  Exotic and usually back-ordered.

Overall: 

Ideal Uses

The 200mm Micro is Nikon's sharpest 200mm lens for use as a general purpose telephoto, as well as the dream lens of bug photographers. Only the [\\$4,000 f/2 monsters](#) might be as sharp.

This 200mm is exceptional for use with the [D3X](#) for landscape photography.

It's perfect for use on [FX digital](#), [DX digital](#) and film.

Oddly, one other application to which it could be ideally suited, with its long focal length, zero distortion and insanely sharp optics, is the study of atmospheric heat shimmer.

Not for

Other faster lenses are better for environmental portraits, since f/4 can't lose the background that well and [bokeh](#) is only so-so.

This traditional AF lens will not autofocus with the cheapest [D40](#), [D40x](#) and [D60](#); get the [105mm VR Micro](#) instead for those cameras. Barring that, it's a bit heavy and expensive, but its optics are extraordinary even for day-to-day use.

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The Nikon 200mm f/4 AF-D ED is simply nuts. I've never used a sharper 200mm lens. If shooting flat tests at any distance, I can't tell if it was shot at f/4 or stopped down. As far as sharpness goes, it seems to be optically perfect, even in the corners of the FX frame.

If you want the sharpest possible 200mm lens, this is it, even if you don't need the macro ability. I haven't tried the [\\$4,000 200mm f/2 VR](#), which is probably as good for three times the price, and adds VR. The f/2 "super-Chub" should be better for portraits, sports and people.

Definitions

Micro: Nikon uses the word Micro to sound cool. It means the same as macro. I'll use the two words interchangeably.

Normal Distances: Normal distances are from about 6 feet (2m) to infinity, the range over which ordinary 200mm lenses focus. Closer distances are the macro range.

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I personally buy from [Adorama](#), [Amazon](#), [Ritz](#), [B&H](#), [Calumet](#) and [J&R](#). I can't vouch for [ads](#) below.



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Nikon 200mm f/4 ED-IF AF. [enlarge](#).

Compatibility [back to intro](#) [back to top](#)

The 200mm f4 AF works great with almost every film and digital Nikon camera made since 1977. If you have a coupling prong added to the diaphragm ring, it's perfect with every Nikon back to the original [Nikon F](#) of 1959.

The only incompatibility is that it will not autofocus with the cheapest [D40](#), [D40x](#) and [D60](#), but if you focus manually, everything else works great. The [D40](#), [D40x](#) and [D60](#) even have in-finder focus confirmation dots to help you.

See [Nikon Lens Compatibility](#) for details on your camera. Read down the "AF, AF-D (screw)" column for this lens.

History [back to intro](#) [back to top](#)

1978-2005: Nikon made a completely different manual focus 200mm f/4 Micro. It had 9 elements in 6 groups, great one-finger internal focus, took 52mm filters and got down to 1:2 (0.71m or 28"). Its optics were inferior because it had strong lateral color fringes in the macro range. The AI version was made from 1978-1982, and the AI-s from 1982-2005.

22 December 1993-today: This AF-D micro was Nikon's first AF 200mm lens. It was introduced among the first AF-D lenses. even after 15 years, it is still sold unchanged in 2009.

Production [back to intro](#) [back to top](#)

Nikon has only made about 12,000 of these 200mm AF Micro lenses over the past 15 years, and still makes them today. This makes them relatively rare, even to find new. For comparison, Nikon has made millions and millions of 50mm lenses.

Nikon made only about 40,000 of the inferior manual focus lens.

Pricing [back to intro](#) [back to top](#)

The 200mm Micro has always cost a grand or two, corrected for inflation. This is why Nikon sells so few of them. The dollar price hasn't changed much in 15 years, so it's actually the cheapest it's ever been today.

	Price, new*	Corrected for inflation, 2008
1994	\$1,300	\$1,920
1995	\$1,400	\$2,010
1996	\$1,220	\$1,700
1997	\$1,455	\$1,980
1998	\$1,250	\$1,680
1999	\$1,250	\$1,640
2000	\$1,325	\$1,680
2005	\$1,340	\$1,500
2008	\$1,340	\$1,340
2009	\$1,650	\$1,656
2010	\$1,650	\$1,630

* At full [NYC discount](#). Local retail will be higher.



Focus Controls, Nikon 200 Micro.

Specifications with commentary [top](#)

[Intro](#) [Specifications](#) [Performance](#) [Recommendations](#)

Name: Nikon calls this the AF Micro-Nikkor 200mm f/4D IF-ED.

AF: Auto Focus.

Micro-Nikkor: Macro lens.

D: The lens tells the camera the distance to the subject, which helps the exposure meter, especially with on-camera flash.

IF: Internal focusing. Nothing moves outside the lens as you focus.

ED: Extra-low Dispersion glass, for reduced secondary lateral color fringes.



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Identity plate, tripod collar and aperture controls, Nikon 200mm Micro.

Optics: 13 elements in 8 groups, which is a huge amount of elements for any fixed-focal length lens. Two elements are of ED glass. This explains the incredible performance.

Nikon also calls the floating element **IF** system "**CRC**," for close-range correction. This means this lens optimizes its design for perfect performance as you focus at any distance, and it works!

It's multicoated, which Nikon calls SIC, Super Integrated Coating.

Close Focus: 1-5/8 feet (0.5m).

Working Distance: 10.2" (260mm), the distance between the subject and the front of the lens at 1:1.

Maximum Reproduction Ratio: 1:1, life size on-film or on-sensor.

Hard Infinity Focus Stop? No.

Focus Scale: Yes.

Reproduction Ratio Scale: Yes, in orange from 1:10 to 1:1.

Depth-of-Field Scale: Yes, but only a tiny one for f/32.

Infra-Red Focus Index: No.

Diaphragm: 9 traditional straight blades. Stops down to f/32 at infinity, f/45 at 1:1.

Aperture Ring: Yes, full-stop clicks.

Filter Thread: 62mm, metal. Does not rotate.

Tripod Collar: Yes, two holes. Rotates and locks, but does not come off. [more info](#).

Size: Nikon specifies 7.60" (193mm) extension from flange (7.95" [202mm] overall) by 3.00" (76mm) diameter.

Weight: 41.610 oz. (1,179.6g), measured on a lens made in 2007. Nikon specifies 42.0 oz. (1,190g).

Hood: HN-30 metal screw-in, not included.

Case: CL-45 hard black fake leather tubular case, included.

Teleconverters: Nikon suggests no teleconverters for use with the 200mm AF Micro.

Made in: Japan.

Introduced: 22 December 1993.

Nikon Product Number: 1 8 N S in c t lo o Sprin 2008. nl etter pro N S Nikon v nce
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Price:

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Nikon 200mm f/4 AF Micro, as sold today in Japan.

Performance [top](#)

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Nikon AF 200mm f/4 D ED-IF Micro-NIKKOR. [enlarge](#).

Overall [back to Performance](#) [back to top](#)

The 200mm f/4 D AF Micro is among Nikon's sharpest and most distortion-free lenses ever. It's also built like a tank. If you want one, just get it. It's unbeaten for use as a regular telephoto as well as for macro.

Focus [back to Performance](#) [back to top](#)

Most macro shooters use manual focus. I do. The huge manual focus ring feels great for manual use.

Like most AF macro lenses, there is such a huge range covered that it's common for the AF system to hang up if you're at the wrong end of the focus range. It works fine at normal distances, but it will drive you nuts if you expect the AF system to bang the lens from macro to normal ranges using the AF system. Canon Macro lenses are much better at AF.

AF Speed

If you expect the AF system to pull the lens between macro and normal distances, AF is slow. It's geared for precision instead of speed, and has a huge range to cover.

One full turn (two half-turns) of the AF screw pulls focus from infinity down to 25 feet.

Used for normal distances, AF is just fine.

AF Accuracy

AF is right on.

Manual Focus

Manual focus is easy. The focus ring feels great, although not as slippery as dedicated manual focus lenses.

Manual focus is geared just right for macro use. It's easy to bring the lens to and from the macro range with one turn of the wrist.

Focus Ring

The focus ring locks for steady hand-holding while in AF. It only rotates when set to MF.

Use on the N2020

Nikon cautions that you might screw up an N2020 (aka N-501) if you set the lens to MF but leave the N2020 in AF. Move both switches.

On other cameras, it's AOK to leave the camera in AF all the time and use the easy AF-MF thumb set ring to switch.

Bokeh [back to Performance](#) [back to top](#)

[Bokeh](#) is poor, both at f/4 and f/8. This 200mm micro lens is designed for crazy sharpness and no distortion at any distance; bokeh didn't make the designers to-do list.

Color Rendition [back to Performance](#) [back to top](#)

The color rendition of this 200mm AF Micro seems the same as my other modern Nikkor AF lenses.

Distortion [back to performance](#) [back to top](#)

The 200mm f/4 AF Micro has no visible distortion at any distance.

It's as if the designers of this micro lens paid a visit to the guys at [Nikon Precision](#) who make steppers and scanners for manufacturing computer chips and LCDs, for which any distortion is absolutely not tolerated.

What invisible levels of distortion are present at just some distances can be corrected for extra-critical use by plugging these figures into [Photoshop CS2's lens distortion filter](#). These aren't facts or specifications, they are the results of my research that requires hours of photography and calculations on the resulting data.

	Visible Effects	Correction factor, FX and Film
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∞		tbd
100' (30m)	none.	0.0
20' (6m)	none.	0.0
10' (3m)	none.	0.0
1:10 (8ft, 2.5m)	none.	-0.2
1:8 (6ft, 2m)	none.	-0.1
1:4	none.	-0.2
1:2	none.	0.0
1:1	none.	0.0

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Falloff (darkened corners) [back to performance](#) [back to top](#)

Falloff on [FX](#) is minor wide open, and invisible by f/5.6. It won't be an issue at all on [DX](#) (see [crop factor](#)).

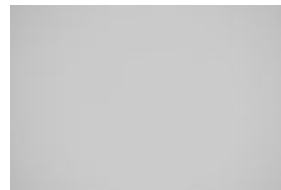
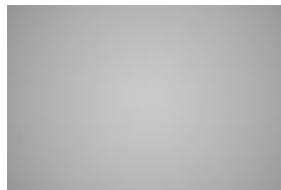
I've exaggerated this by shooting a gray field and placing these on a gray background. Even with this, falloff is the lowest I've seen on any lens by f/8 at any distance. What look like blank rectangles at f/8 and f/11 are the actual images created by this 200 f/4 Micro.

Nikon 200mm f/4D AF falloff on FX and film.

At infinity.

[Wide
Open](#)

f/5.6



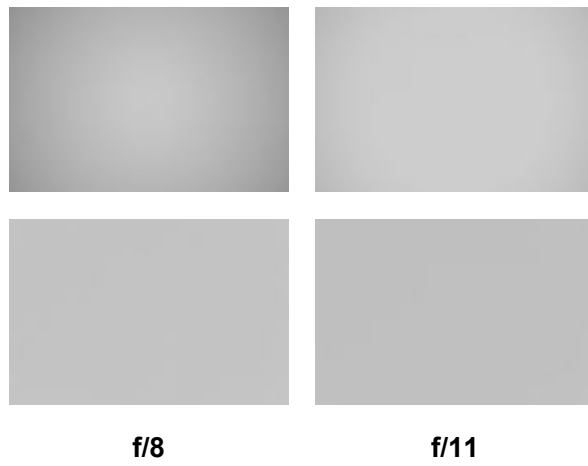
f/8

f/11

At 1:10.

[Wide
Open](#)

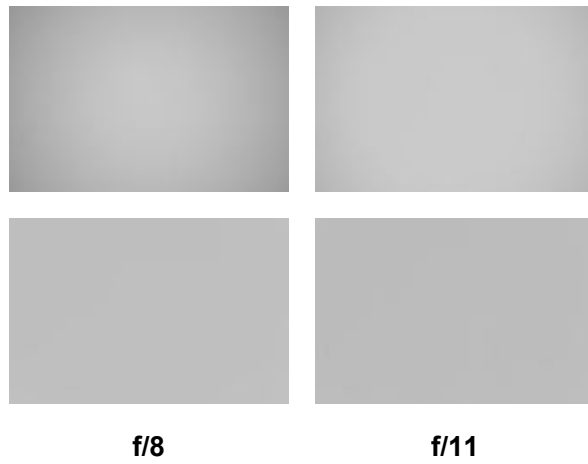
f/5.6



At 1:4.

Wide
Open

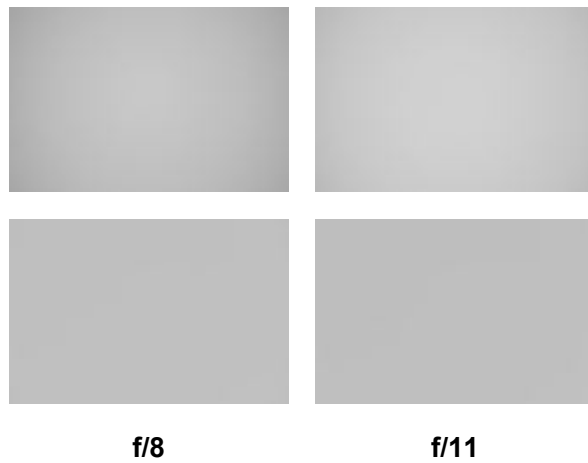
f/5.6



At 1:2.

Wide
Open

f/5.6



At 1:1.4.

[Wide
Open](#)

f/5.6



f/8

f/11

At 1:1.

[Wide
Open](#)

f/5.6



f/8

f/11

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Filters, Use with [back to Performance](#) [back to top](#)

There is no problem with vignetting, even with combinations of thick filters. The 62mm filter thread is

generous.

The filter ring does not rotate.

Lateral Color Fringes [back to Performance](#) [back to top](#)

Are you kidding? ZERO!

There are no visible lateral color fringes on the D3. I didn't check, but doubt there will be any on older or lesser cameras which can't correct these as does the D3.

Maximum and Minimum Apertures [back to Performance](#) [back to top](#)

Repro Ratio	Maximum Aperture	Minimum Aperture
Infinity - 1:10	f/4	f/32
1:10 - 1:4	f/4.2	f/36
1:4 - 1:2.5	f/4.5	f/36
1:2.5 - 1:1.8	f/4.8	f/40
1:1.8 - 1:1.2	f/5.0	f/40
1:1.17 - 1:1	f/5.3	f/45

Mechanics [back to Performance](#) [back to top](#)

Like Nikon's other pro AF lenses of the early 1990s, the 200mm Micro-NIKKOR is built like a tank.

It's a black crinkle-coated ingot of precision.

Barrel Exterior: black crinkle-coated metal.

Filter Threads: Anodized aluminum.

Focus Ring: Metal; rubber covered.

Depth-of-Field Scale: Yes, but only for f/32.

Internals: Metal.

Aperture Ring: Plastic, painted numbers.

Mount: Dull-chromed brass.

Markings: Paint.

Identity Plate: Embossed and planed metal.

Serial Number: Laser engraved onto bottom rear of aperture ring.

Ass-Gasket (dust seal at mount): No.

Noises When Shaken: Clangy klunking from the internal focus mechanism.

Proudly made in: Japan. The Japanese-market box even says "Made in Japan" right under the Nikon logo.

Sharpness [back to Performance](#) [back to top](#)

Warning 1: [Image sharpness depends more on you than your lens.](#)

Warning 2: [Lens sharpness doesn't mean much to good photographers.](#)

With those caveats, the 200mm f/4 AF Micro is among Nikon's sharpest lenses ever. It is the sharpest lens Nikon has made short of the \$5,000 super-teles. Unlike ordinary lenses, the 200mm micro simply refuses to get softer in the corners of the FX frame or wide open.

It is so sharp, even wide-open, that I thought it was stopped down. I had to check my data to make sure that it really was wide open. Likewise, I had to keep checking that my D3 really was set at 12 MP, since pixel-by-pixel it is so sharp that I thought for sure I had my D3 turned down to a lower resolution, where it's much easier to create sharp pixels when there are fewer of them.

The only limitations are the usual of atmospheric conditions (for distant shots), motion, limited depth-of-field, subject parallelism and alignment, and of course [diffraction](#) at the smallest apertures.

Sunstars [back to Performance](#) [back to top](#)

Oddly, I can't see any but the very slightest sunstars, even shooting the sun reflecting off windshields and chrome.

I haven't yet tried shooting distant terrestrial points of light at night.

Tripod Collar [back to Performance](#) [back to top](#)



Nikon 200mm Micro Tripod Foot. [enl r e.](#)

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Compared to other lenses

[ck to er orm nce](#) [ck to top](#)

here i no e l.

he 200mm /4 Micro-N m n l oc len w in erior with tron l ter l color rin e in the m cro r n e which ren er it poor or photo r phin pro ct with letterin ll o.

Canon makes a [180mm f/3.5 Macro](#) which is legendary among Canon shooters. It has very similar specifications and costs about the same. I expect that it is also a stellar performer. I haven't tried it, but it appears to have the same insanely great optics, but probably much faster autofocus.

Recommendations [top](#)

[Intro](#) [Specifications](#) [Performance](#) [Recommendations](#)



Nikon 200mm Macro. [enlarge.](#)

You want one? Get one. The 200mm Micro is an incredible lens, but rarely seen because of its relatively high price.

The reason to get a 200mm Micro is either for an incredibly sharp general telephoto lens, or for serious macro work where you don't want to be right on top of your subject.

Deployment

Studio

Used in the studio, where I have numerous lights always moving around and often shining back at me, I shoot this with no filter and just the HN-30 hood.

Field use as a general telephoto

I attach a [62->77mm step-up-ring](#) to convert this to today's pro standard of 77mm, and use a [77mm Nikon UV](#) or [Hoya UV](#) filter for protection.

I use a step-up ring when I get a lens like this and treat it as if it's a 77mm filter thread as long as I own it. This way I only need to carry one set of filters to fit all my lenses.

I bought a new [77mm Nikon lens cap](#), and save the original 62mm cap in the box along with the case I don't use.

The lens barrel is wider than the 62mm filter threads, so the step-up ring fits right in.

Field use for angry snakes or violent human subjects

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The Future

Seeing how Nikon has introduced AF-S versions of the 105mm and 60mm AF Micro lenses, I would expect an AF-S version of the 200mm Micro.

Seeing the extraordinary optics and mechanics of this AF-D 200mm Micro, I wouldn't wait around for an AF-S version. I prefer the earlier versions of the 60mm and 105mm lens anyway, so I have a sneaking suspicion that any replacement for this 200mm will be plastic and less exciting than today's 200mm D AF Micro.

Any new version is certainly going to be [gelded](#) ("G," having its aperture ring chopped off), so a newer version won't work with older or manual focus film cameras. This lens today works great with everything.

A new lens might have VR, which might be useful in the studio. I haven't had any problems, but studio strobes tend to have long-duration flashes (about 1/250 second), during which there could be some sharpness improvement for a small percentage of hand-held shots with VR.

More Information: [Nikon, Japan](#).

PLUG [top](#)

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