

Nikon 55mm f/2.8 AI-s

Micro-NIKKOR (1979-today)

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Nikon Micro-NIKKOR 55mm f/2.8 AI-s ([FX](#), [DX](#) and [35mm](#) coverage, 52mm filters, 10 oz./290g, [about \\$400 new](#) or [\\$175 used](#).) [Enlarge](#). You can still [buy them brand-new from B&H Photo-Video](#), where I've bought two of them myself, or used at this [link directly to them at eBay](#) (see [How to Win at eBay](#)) and [at Amazon](#).

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[Why fixed lenses take better pictures.](#)

Introduction

The Nikon Micro-NIKKOR 55mm f/2.8 AI-s has been a hit ever since it was introduced in 1979. I've bought two of them brand-new over the years, and the first one I bought in 1983 still works perfectly.

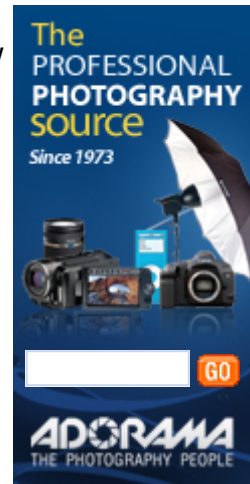
You can still get them brand-new at [B&H Photo-Video](#).

It is hellaciously sharp at every aperture and distance, diffraction limited by f/5.6 in the center, extremely well made and fairly inexpensive. It is manual-focus only.

This 55mm lens was also made for a year [as an autofocus lens](#).

The newer [60mm f/2.8 AF](#) focuses to 1:1, instead of this lens' half life-size, and is autofocus. It's a more practical choice for most uses.

Today, the [60mm f/2.8 G](#) is as sharp, and autofocuses with all DSLRs. The 60/2.8G is the best lens for most people, but since I've already bought two of these, personally I'm already set.



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Specifications

It takes 52mm filters.

It focuses down to about 9," at which point the image on film is one-half the size of the subject.

It has six elements in five groups.

It has close range correction (CRC).

It has a seven-bladed diaphragm stopping down to f/32.

It takes the Nikon HN-3 hood, although you don't need it.

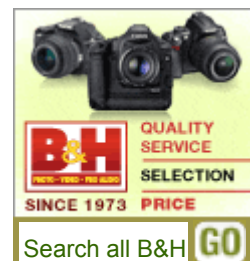
It weighs 10 oz. (290g).

It is 2.5" (63.5mm) in diameter and 2.8" (70mm) long.

Price:

About [\\$400 new](#). (\$350 new in 2008, \$300 new around 2005).

About [\\$175 used](#).





Nikon 55mm f/2.8 Controls.

Performance

This lens is often used as the benchmark against which other lenses are compared. It's that good.

Distortion

The 55mm f/2.8 AI-s has no visible distortion at any distance.

On film and FX, any distortion at 3 meters (10 feet) is under ± 0.1 in [Photoshop's lens distortion filter](#).

Ghosts

It has few ghosts.

Lateral Color Fringes

It has no lateral color.

Sharpness

It's very, very sharp at every aperture. Here's what it does on [Fuji Velvia 50](#):

f/2.8: Sharp all over, does have some light falloff

f/4: Little, if any, falloff

f/5.6: Diffraction limited in center; seems like it is all over actually. Even illumination.

f/22: Diffraction takes the edge off the sharpness

See my [Diffraction](#) page for actual performance examples.

Mechanics

Like all AI-s manual focus lenses, it is made to an impeccably high mechanical standard.

Recommendations

This lens is so good I own two. Well, OK, that's not exactly why I own two, but I really do have them.

It's [inexpensive to buy new](#). On the other hand, the [60mm f/2.8 AF](#) version doesn't cost much more and focuses directly to life-size. The AF version also gives full compatibility on AF and digital cameras, even though for macro work I usually focus manually anyway.

I prefer the [105mm](#) lens for macro work. That's why, even though I have two of these, I rarely use it. Friends use this focal length for photographing fish in aquarium tanks. The short focal length allows one to get close to the glass and still be able to see a complete fish, unlike a 105mm.

If you want a macro for duplicating documents then this is a good choice. If you want to photograph little animals, then go instead for a 105mm macro.

Hand held on a Nikon FA I get blurred results at 1/30 and great results at 1/60.

It works great in place of a faster normal lens. When I was younger and stupider I thought that it would not be very good when used at ordinary distances. Whoops, it is spectacular at all distances. Unless you need the extra stop or two offered by the other 50mm normal lenses, you can forget about needing a separate normal 50mm lens if you have this.

The nature of close-up photography is such that the effective aperture of the lens gets smaller as you focus closer. The camera compensates for this automatically when you meter through-the-lens for available light or with TTL flash. TTL flash even works great on an F100, although one does have to dial in compensation as for all other lenses due to the calibration of the F100.

If you are using this with manual flash or an external meter you will need to compensate manually for this loss of light.

The hard way to do this is to carry the instruction sheet with you everywhere and refer to it constantly.

The smart way is to attach a piece of removable white label to the focus ring, and mark the compensation along this ring of paper that corresponds to the focused distance. In the photo below you can see that 1/3 stop is marked at 1:8, 1/2 stop is at 1:5.2, 2/3 stop is at 1:4 and (trust me) 1 full stop is at 1:2.1.



I have never messed with the PK-13 extension rings. If I want more magnification I use my 105mm AF macro instead, or add a TC-200 teleconverter to either lens.

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