

Micro-Nikkors

For the field of micrographics, Micro-Nikkor lenses offer high resolution, flatness of field, and freedom from astigmatism—qualities that are prerequisites for producing perfect microcopies or microphotographs. The 55mm and 70mm Micro-Nikkors are of modified Gauss design using five elements in four groups; the 105mm employs five elements in three groups. The 150mm Micro-Nikkor is further modified for even higher resolution and incorporates six elements in four groups.

Special Characteristics

Micro-Nikkors are corrected for aberrations at their standard reduction ratios, as opposed to conventional lenses which are corrected at infinity focus. Further, the diameters of the front and rear element groups are larger than the dimensional aperture of the lens so that no vignetting occurs with the lens only moderately stopped down. However,

because of their extreme flatness of field, it is vital to keep the planes of object and film precisely parallel.



70mm f/5 Micro-Nikkor		150mm f/5.6 Micro-Nikkor		55mm f/3.5 Micro-Nikkor	
Focal length	70mm	Focal length	150mm	Focal length	55mm
Max. aperture ratio	1 : 5	Max. aperture ratio	1 : 5.6	Max. aperture ratio	1 : 3.5
Min. aperture	f/22	Min. aperture	f/22	Min. aperture	f/32
Lens construction (elements-groups)	5-4	Lens construction (elements-groups)	6-4	Lens construction (elements-groups)	5-4
Standard magnification	1/12X	Standard magnification	1/10X	Standard magnification	1/10X
Usable magnification range	1/30X ~ 1/5X	Usable magnification range	1/30X ~ 1/5X	Usable magnification range	1/∞X ~ 1X
Picture angle	43°	Picture angle	41°	Picture angle	43°
Corrected chromatic aberration range	400nm ~ 650nm	Corrected chromatic aberration range	400nm ~ 650nm	Corrected chromatic aberration range	400nm ~ 700nm
Vignetting	0% (f/7)	Vignetting	0% (f/8)	Vignetting	0% (f/5.6)
Distortion	0.3%	Distortion	0.1%	Distortion	0.5%
Image size	55.2mm dia.	Image size	115mm dia.	Image size	24 x 36mm (43.2mm dia.)
Original size	662.4mm dia.	Original size	1,150mm dia.	Original size	432mm dia.
Image distance at standard magnification	985.8mm	Image distance at standard magnification	1,815mm	Image distance at standard magnification	666mm
Resolution	—	Resolution	150LP/mm (1/10X e-line)	Mount	Nikon F mount
Weight	250g	Weight	600g	Weight	245g

