

Minolta Lenses



Minolta's system of single lens reflex lenses ranges from 7.5mm fisheye to 1600mm super-telephoto, including macros, wide angle and telephoto zooms, and special-purpose lenses.

Minolta lenses are designed to satisfy the most rigorous photographic requirements. Many Minolta Rokkor-X lenses are unique in their state-of-the-art advances, and all feature Minolta's patented Achromatic coating.

In this exclusive coating process, selected lens elements are double coated with a layer of antimony oxide and with magnesium fluoride. This substantially cuts reflection, thus reducing flare, and allows almost 100% of the light to reach the film. Carefully balanced spectral transmission characteristics produce true, rich color tones, while undesirable effects of ultraviolet radiation are reduced to give you better, more lifelike color images.

Minolta lenses are made in Minolta's own factories. Even the optical glass for

these lenses is made by Minolta, starting with the rare earth compounds and combining the most modern computer design with traditional hand grinding and polishing. Even the crucibles in which the glass is mixed and melted are designed and built by Minolta.

This means that Minolta can enforce the most rigid quality control over every step in the design and manufacturing of its lenses. The result is the precise matching of optical and mechanical performance so important in advanced photography.

From start to finish, every Minolta lens is a superbly crafted optical instrument.

Minolta lenses are the vision for the creative photographer. There are fisheye lenses that produce dramatic 180° circular and full frame images. The Minolta complement of wideangle lenses give photographers a wide and highly creative capability for standard work or bold effects. And there are four "normal" lenses to choose from for economy or available light photography.

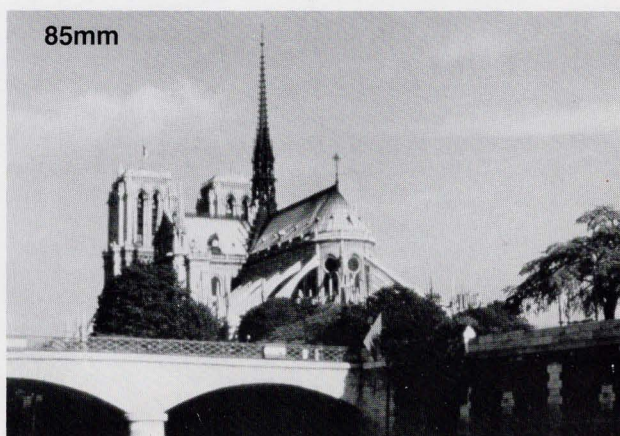
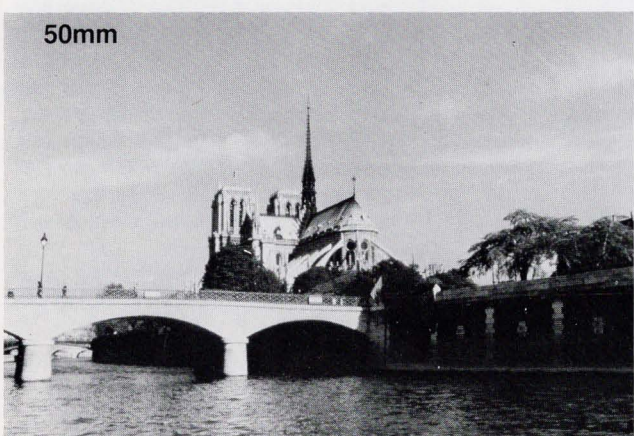
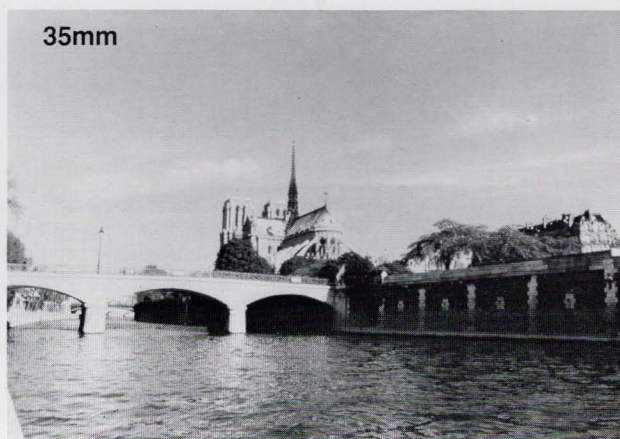
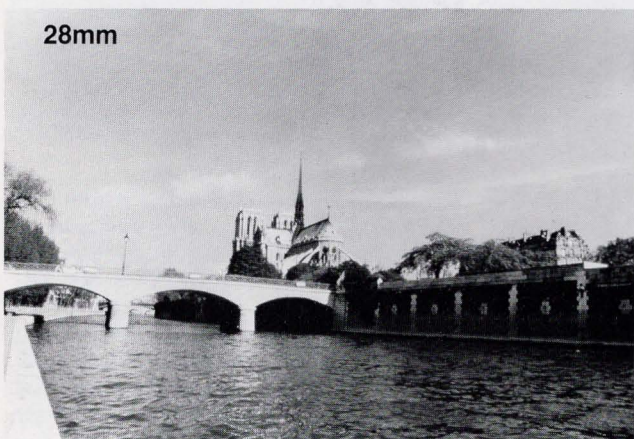
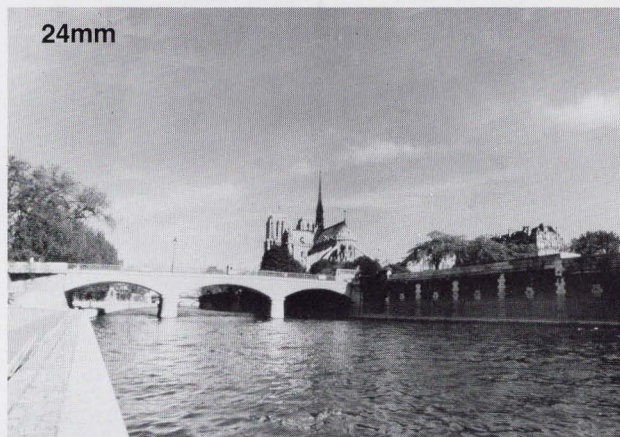
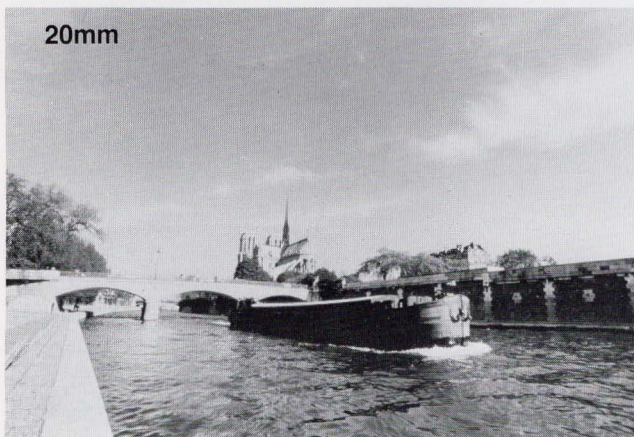
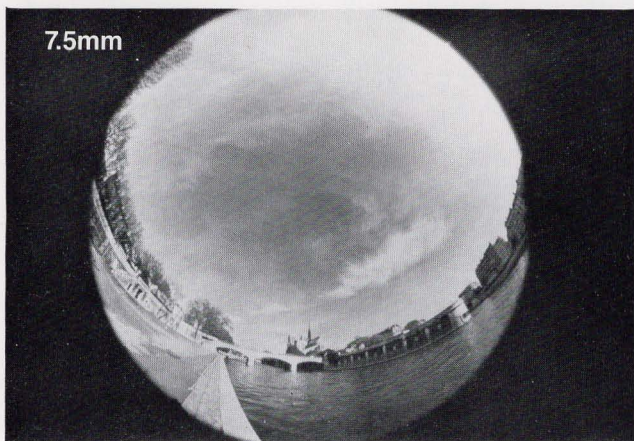
Minolta telephotos run the gamut from portrait focal lengths to long teles which incorporate a special crystalline fluorite element to virtually eliminate aberrations and deliver an extraordinarily sharp image.

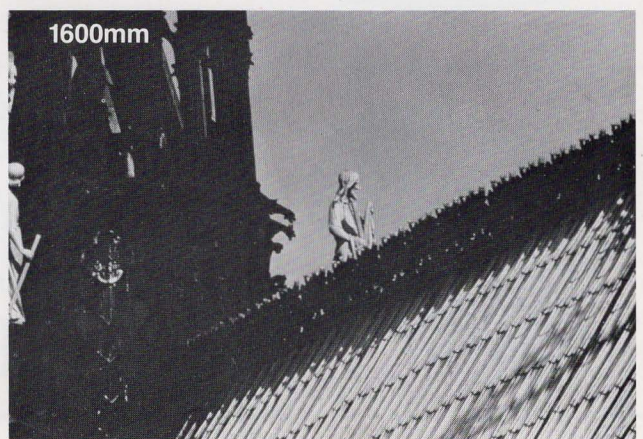
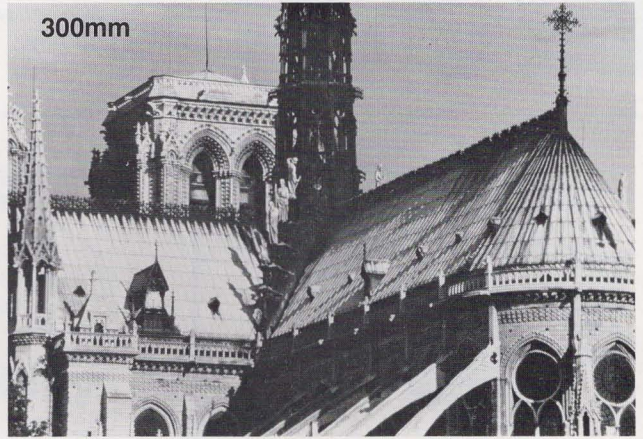
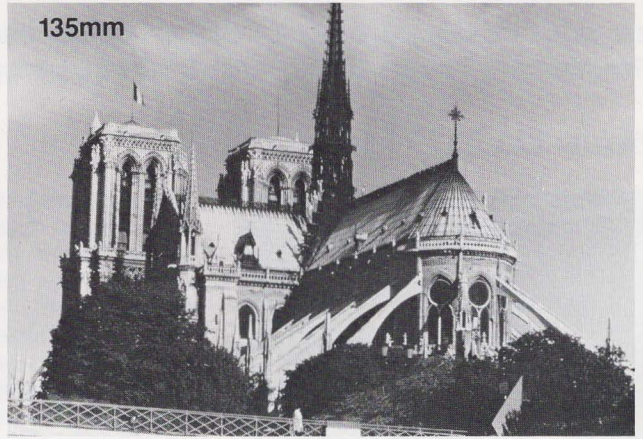
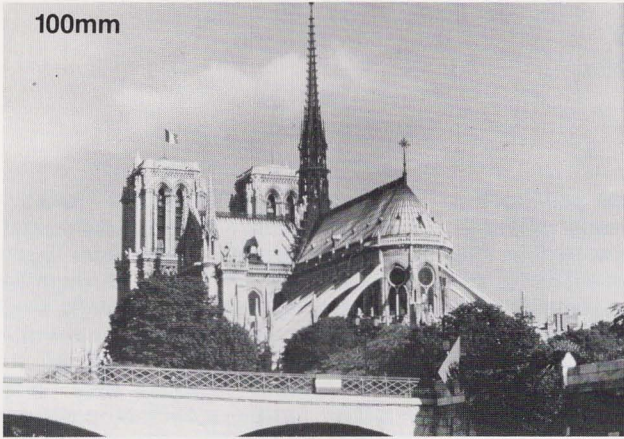
Minolta, the pioneer in mirror lens design now offers four catadioptric lenses, including the first truly compact 500mm and the extraordinary 250mm lens that's barely larger than a standard 50mm lens.

Minolta zooms offer a range of coverage from 24mm to 500mm, each with superb image quality on a par with fixed focal length lenses. And of course there are macros for close-up work and highly innovative special purpose lenses which can focus perfectly on a curved surface, control perspective or even change the image rendition from razor sharp to romantically soft focus.

No matter what the picture-making need may be, Minolta has a lens that will do the job with distinction.

Minolta Lenses Expand Your Vision

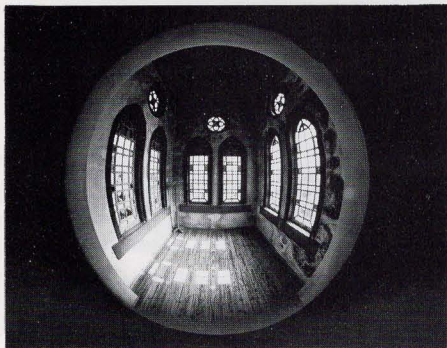




Minolta Fisheye Lenses

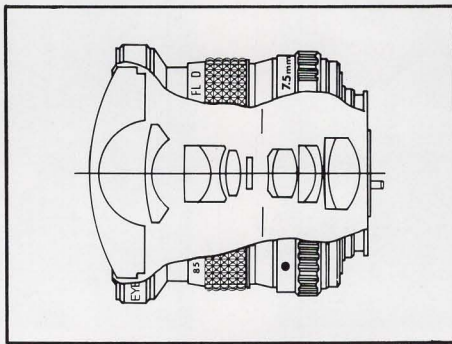
Computer-designed, state-of-the-art optics combine extraordinary image quality and dramatic perspectives.

7.5mm f/4 MD Fisheye



This extreme fisheye lens produces a proportional circular image approximately 23mm in diameter within the 24x36mm film frame. The dramatic images attainable with this lens allow the creative photographer unusual scope in achieving visual impact, while the lens' equidistant projection formula also suits it for use in technical applications that demand full 180° field coverage, such as surveillance, meteorology and astronomy.

The 7.5mm MD Fisheye Rokkor-X features Minolta's patented Achromatic coating, automatic diaphragm operation and couples to the through-the-lens metering systems of Minolta single lens reflex cameras. Image control on the focusing screen is retained. Any one of six built-in filters may be selected by turning a click-stopped control ring on the lens barrel. Focus is fixed at 4 feet; however, at the maximum aperture of f/4, depth of field extends from 19 $\frac{3}{8}$ inches to infinity.



7.5mm Specifications

Maximum Aperture: f/4
Diaphragm: Fully automatic, f/4-f/22
Construction: 12 elements in 8 groups
Angle of View: 180°
Focus: Fixed at 4 ft.; depth of field: 19 $\frac{3}{8}$ in. to infinity at f/4
Filters: Built-in 1A, Orange, Red, 80B Conversion, 85 Conversion, FL-D (for fluorescent lighting with daylight-type color film)
Weight: 12 $\frac{3}{8}$ oz.

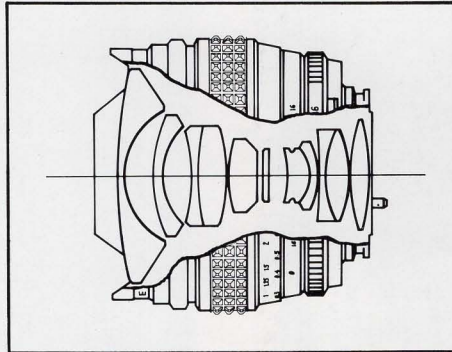
16mm f/2.8 MD Fisheye Rokkor-X



This fisheye lens is remarkable in several respects. It offers a diagonal angle of view of 180 degrees. Its f/2.8 maximum aperture is as fast as any fisheye available. It has a fully automatic meter-coupled diaphragm. Instead of the traditional fisheye circle, its image fills the entire frame. Yet it does all this while allowing completely normal, automatic reflex viewing. This gives the photographer marvelous freedom and flexibility to compose, meter and shoot as with any

other interchangeable Minolta lens.

The 16mm MD Fisheye Rokkor-X features Minolta's patented Achromatic coating, and is equipped with a built-in lens shade and four built-in filters that click into position when a control ring on the lens barrel is rotated. This is a lens with many commercial and creative uses that are enhanced even further by its surprisingly close minimum focusing distance of only one foot.



16mm Specifications

Maximum Aperture: f/2.8
Diaphragm: Fully automatic, f/2.8-f/22
Construction: 11 elements in 8 groups
Angle of View: 180°
Minimum Focus: 1 ft.
Filters: Built-in 1A, Yellow, Orange, 80B Conversion
Weight: 15 $\frac{1}{2}$ oz.

Minolta Shift and Variable Field Curvature Lenses

Special purpose lenses to control perspective or adjust field of sharp focus from flat to curved.

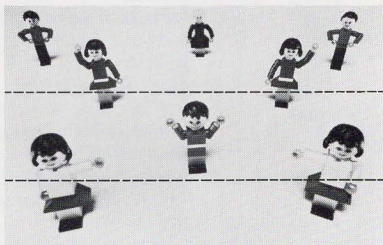
24mm f/2.8 MD VFC

This remarkable wide-angle is the first lens that allows the photographer to visually determine and adjust the curvature of the lens field to conform to subject fields ranging from concave to convex.

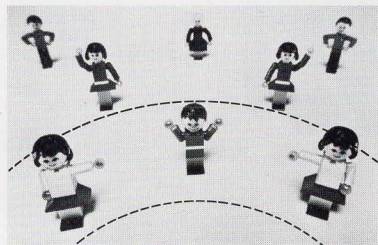
In three examples shown below, all photo-

graphs were made at f/2.8 to clearly show the VFC effects. Stopping the lens down to moderate or small apertures increases depth of field to supplement the effectiveness of the VFC feature in rendering curved subjects with maximum sharpness.

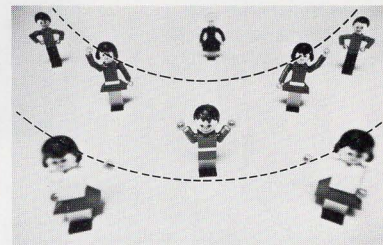
At the flat field control setting the fully meter-coupled 24mm f/2.8 VFC lens offers optical performance equal to that of a conventional 24mm f/2.8 wide-angle lens.



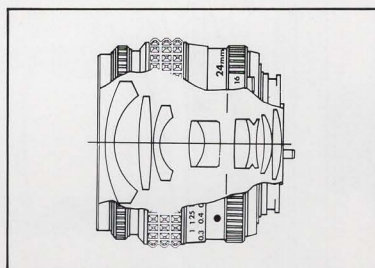
FLAT FIELD



CONCAVE FIELD



CONVEX FIELD



24mm VFC Specifications

- Maximum Aperture: f/2.8
- Diaphragm: Fully automatic, f/2.8-f/22
- Construction: 9 elements in 7 groups
- Angle of View: 84°
- Minimum Focus: 1 ft.
- Filter Thread Diameter: 55mm
- Weight: 12 oz.
- Special Control: Ring for manually varying field curvature continuously from convex through flat to concave

35mm f/2.8 Shift CA

This amazing wide-angle lens is the first to combine full-circle shifting of the lens barrel for perspective control, variable field curvature from concave through flat to convex and fully automatic diaphragm operation. Minolta's exclusive shifting mechanism for the 35mm f/2.8 Shift CA Rokkor-X is a com-

bination of sliding elements joined by vertical and horizontal dovetail grooves with locking clamps to secure the lens in a normal or shift position. With this design, the lens may be shifted easily in any direction over a full 360°.

When its special capabilities are not

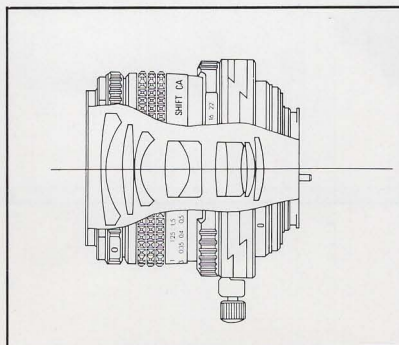
required, the 35mm f/2.8 Shift CA Rokkor-X serves as a fine medium wide-angle lens. It focuses to 1 foot by Minolta's "floating" system, which assures excellent sharpness even at close distances, and has Minolta's patented Achromatic coating for high contrast and excellent color rendition.



Camera tilted, verticals converge.



Lens shifted vertically, camera level, verticals remain parallel.



35mm Shift CA Specifications

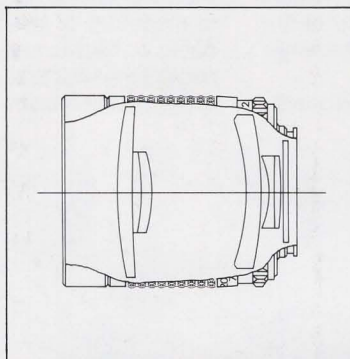
- Maximum Aperture: f/2.8
- Diaphragm: Fully automatic, f/2.8-f/22
- Construction: 9 elements in 7 groups
- Angle of View: 63°
- Minimum Focus: 1 ft.
- Filter Thread Diameter: 55mm
- Weight: 1 lb., 3/4 oz.
- Special Controls: For vertical shifts up to 11mm up or down, lateral shifts up to 8mm left or right, oblique shifts up to at least 7.4mm; for varying field curvature continuously from concave through flat (click-stopped) to convex.

Minolta Mirror Lenses

Advanced catadioptric design yields compact super-tele lenses.

250mm f/5.6 RF

This super-compact telephoto is nearly the same size and weight as a standard 50mm lens but with five times greater magnification. Using state-of-the-art computer-designed optics, Minolta has produced the lightest, most compact telephoto of its kind.

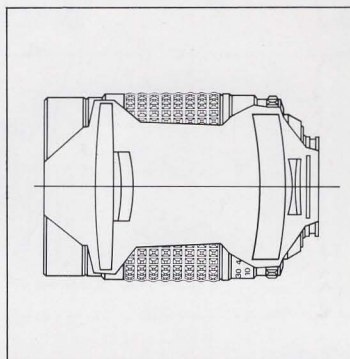


250mm f/5.6 RF

Specifications
 Maximum Aperture: f/5.6
 Diaphragm: None, light transmission changed from f/5.6 via ND filter
 Construction: 6 elements with 2 mirrors in 5 groups
 Angle of View: 10°
 Minimum Focus: 8.2 ft.
 Filters: Screw-in, rear-mounted integral-element type; Normal, 4X Neutral Density
 Optional Filters: Yellow, Orange, Red, 8X Neutral Density
 Weight: 8-13/16 oz.

500mm f/8 RF

Minolta made the first truly compact 500mm mirror lens. This extraordinary catadioptric lens offers high magnification in a compact, lightweight, easy-to-handle size. Like all Minolta mirror lenses, it accepts rear-mount integral lens element type filters.

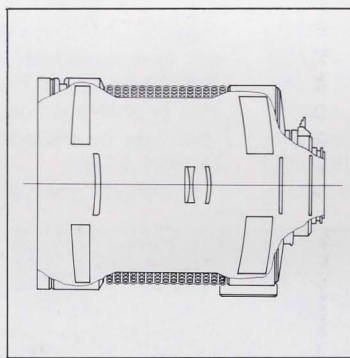


500mm f/8 RF

Specifications
 Maximum Aperture: f/8
 Diaphragm: None, light transmission changed from f/8 via ND filter
 Construction: 6 elements with 2 mirrors in 5 groups
 Angle of View: 5°
 Minimum Focus: 13.1 ft.
 Filters: Screw-in, rear-mounted integral-element type; Normal, 4X Neutral Density, Yellow, Orange, Red
 Weight: 1 lb., 5 1/8 oz.

800mm f/8 RF

This high-quality, compact Minolta 800mm telephoto lens utilizes reflex optical design for great magnification in a very portable and easy-to-handle size. For added creativity, the photographer can choose from five rear-mount integral lens element type filters.

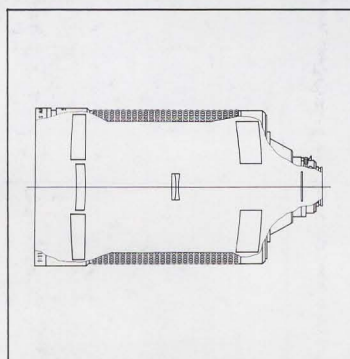


800mm f/8 RF

Specifications
 Maximum Aperture: f/8
 Diaphragm: None, light transmission changed from f/8 via ND filter
 Construction: 8 elements with 2 mirrors in 7 groups
 Angle of View: 3° 10'
 Minimum Focus: 26.2 ft.
 Filters: Screw-in, rear-mounted integral-element type, Normal, Yellow, Orange, Red; Slip-in 4X Neutral Density
 Weight: 4 lb., 3 oz.

1600mm f/11 RF

Minolta's most powerful telephoto provides phenomenal "reach," 32 times greater than a normal lens. Yet it is only slightly over a foot long because of its catadioptric design. Incorporating special optical mirrors in combination with conventional refractive lens elements, this super-telephoto lens provides superior image quality as well as compact design.



1600mm f/11 RF

Specifications
 Maximum Aperture: f/11
 Diaphragm: None, light transmission changed from f/11 via ND filter
 Construction: 6 elements with 2 mirrors in 5 groups
 Angle of View: 1° 30'
 Minimum Focus: 65.6 ft.
 Filters: Screw-in, rear-mounted integral-element type; Normal, Yellow, Orange, Red; Slip-in 4X Neutral Density
 Weight: 15 lbs., 1 1/8 oz.

Minolta 400mm and 600mm Apo Lenses

Unusually sharp, fluorite-element tele lenses with apochromatic correction.

400mm f/5.6 and 600mm f/6.3 MD Apo Tele

The 400mm f/5.6 and 600mm f/6.3 MD Apo Tele Rokkor-X lenses are incredibly sharp, thanks to their special optical design which employs a fluorite (crystalline calcium fluoride) lens element. The fluorite element reduces chromatic aberrations to a level that places these lenses in the "apochromat" category which yields maximum image quality. In addition to sharpness that is virtually unobtainable by conventional design, the Apo lenses produce images with excellent contrast and color quality. These characteristics are attributable to both the lenses' apochromatic design and the patented Minolta Achromatic coating.

Additionally, the 400mm and 600mm

Apo lenses feature a tripod socket on a rotating collar for good balance. This collar allows the camera and lens to be rotated into position and locked securely at any angle.

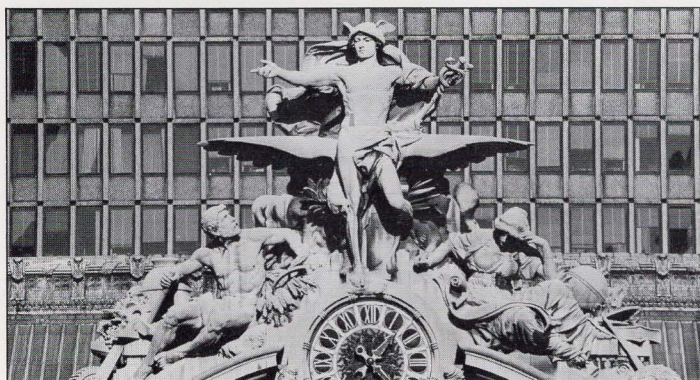
While the 400mm accepts standard 72mm diameter threaded filters, the 600mm incorporates integral lens-element type filters which slip into a slot provided at the rear of the focusing ring.

The 600mm Apo is manufactured with an internal focusing system, making it lighter and more compact than a lens of comparable focal length. This system also allows the lens to focus closer, while the

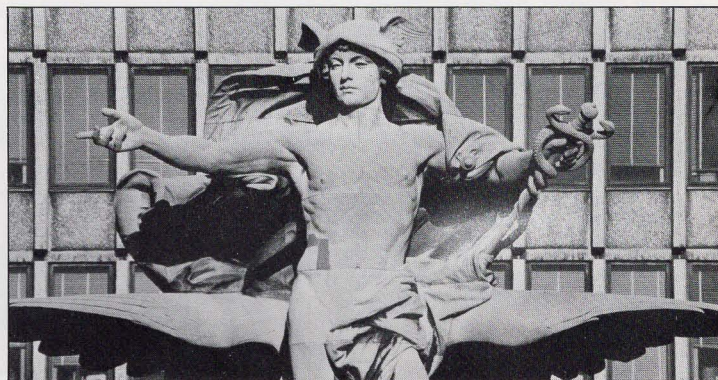
length of the lens remains constant during focusing.

For added flexibility, either lens can be used with Minolta's 300L Tele Converter which transforms them into 800mm f/11 and 1200mm f/12.7 super-teles, respectively, while maintaining optimum image quality.

Because of the outstanding optics and easy handling, the 400mm and 600mm Apo Tele Rokkor-X lenses are well-suited to sports, news, wildlife and other specialized long-lens photography that requires the sharpest definition in black-and-white or color.



Photograph taken with APO lens alone.



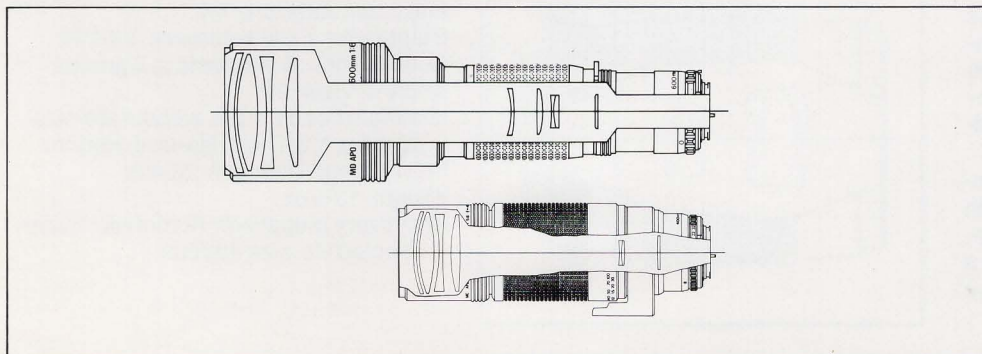
Photograph taken with APO lens plus the 2X Converter. *

*See page C14 for additional information regarding Minolta Tele Converters.



400mm Apo Specifications

Maximum Aperture: f/5.6
Diaphragm: Fully automatic, f/5.6-f/32
Construction: 7 elements in 6 groups;
including second element of crystalline calcium fluoride
Angle of View: 6° 10'
Minimum Focus: 16.4 ft.
Filter Thread Diameter: 72mm
Weight: 3 lb., 2¹³/₁₆ oz.



600mm Apo Specifications

Maximum Aperture: f/6.3
Diaphragm: Fully automatic, f/6.3-f/32
Construction: 9 elements in 8 groups;
including second element of crystalline calcium fluoride and 1 filter
Angle of View: 4° 10'
Minimum Focus: 16.5 ft.
Filters: Integral lens element type:
"Normal", 4X Neutral Density, Yellow, Orange, Red
Weight: 5 lb., 4⁵/₈ oz.

Minolta 50mm and 100mm Macro Lenses

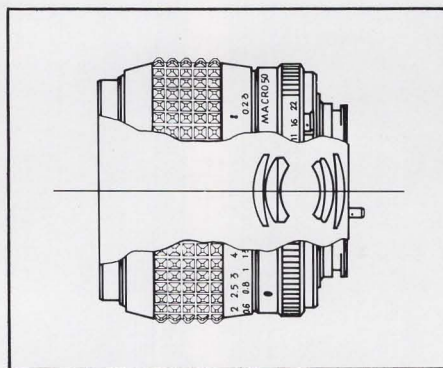
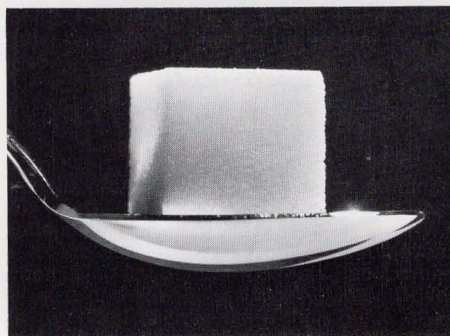
Two superb lenses that afford maximum convenience and versatility in close-up photography.

50mm f/3.5 MD Macro

Because of its extremely wide focusing range, the 50mm MD Macro Rokkor-X is ideally suited for use in place of a normal lens, as well as for macrophotography. While it provides the same 47° angle of view as a normal lens, it offers a substantially greater focusing range. It will produce a critically sharp picture at any distance between 9 inches and infinity and will provide magnifications up to one-half life-size without attachments. Magnifications up to life-size (1:1) are obtained by combining the 50mm Macro with its life-size adapter, which enables the photographer to focus down to 8 inches (subject-to-film-plane distance).

An optional 55mm-diameter reverse ring for the 50mm Macro lens allows it to be mounted in reverse on various Minolta close-up equipment.

The 50mm Macro has a fully automatic diaphragm and couples perfectly to the through-the-lens metering systems of Minolta SLR's. And it features Minolta's patented Achromatic coating.



50mm Macro Specifications

Maximum Aperture: f/3.5
Diaphragm: Fully automatic, f/3.5-f/22
Construction: 6 elements in 4 groups
Angle of View: 47°
Minimum Focus: 9 in. without life-size adapter, 8 in. with life-size adapter
Filter Thread Diameter: 55mm
Weight: 7¼ oz.
Accessory (supplied): Automatic, meter-coupled life-size adapter

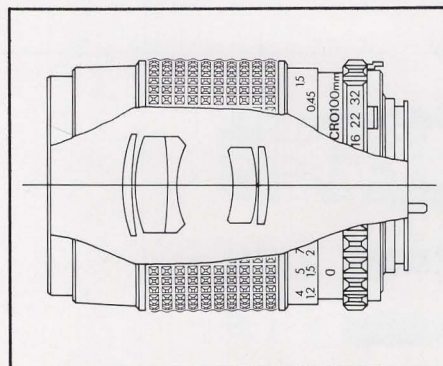
100mm f/4 MD Macro

The 100mm Macro serves as an all-around medium telephoto lens as well as for macrophotography. It provides the same 24° angle of view as a conventional 100mm telephoto lens, but will produce a critically sharp photograph at any distance between 1.5 feet and infinity without attachments.

This lets the 100mm Macro lens form razor-sharp images up to one-half life-size when used alone. Magnifications up to life-size (1:1) are easily and conveniently obtained by using the supplied automatic, meter-coupled life-size adapter.

Naturally, the 100mm Macro lens couples automatically to the through-the-lens metering systems of Minolta SLR's for full-aperture exposure control. And it benefits from Minolta's patented Achromatic coating.

The 100mm MD Macro Rokkor-X provides the close-up photographer with extraordinary optical performance, convenience, and the ability to maintain a greater distance from the subject than with the 50mm Macro.



100mm Macro Specifications

Maximum Aperture: f/4
Diaphragm: Fully automatic, f/4-f/32
Construction: 5 elements in 4 groups
Angle of View: 24°
Minimum Focus: 1.5 ft. without life-size adapter, 1.2 ft. with life-size adapter
Filter Thread Diameter: 55mm
Weight: 13¾ oz.
Accessory (supplied): Automatic, meter-coupled life-size adapter

Minolta Varisoft Lens

A unique short telephoto lens with a control for razor-sharp to soft-focus effects.

85mm f/2.8 Varisoft

This unusual short telephoto features a four-position adjustment ring that varies the image rendition from sharp to soft. The image becomes progressively more diffused towards the frame edges with a minimum of vignetting.

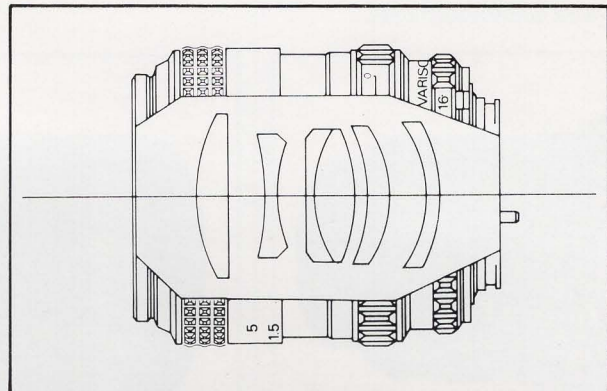
The 85mm f/2.8 Varisoft is of telephoto design with six lens elements in five groups. By adjusting the soft-focus control ring, the lens' rear element shifts to re-introduce controllable

spherical aberration into the optical system. This gives the soft-focus effect without changing the lens' original focus settings. The unique design of the Varisoft lens also provides for simultaneous movement of other lens elements at varied rates to maintain a certain degree of sharpness in the center portion of the photograph.

The softest focus is obtained at f/2.8 with the #3 setting. While the adjust-

ment ring provides click-stop detents for reference or to repeat the same effect, the control is continuously variable for intermediate effects. A fully automatic meter-coupled diaphragm and large f/2.8 maximum aperture provides a bright viewing image.

While ideal for portraiture, the razor-sharp results at the #0 setting makes this short telephoto lens superb for general photography.



Photograph taken with soft-focus control ring at #0 setting.

85mm Varisoft Specifications

Maximum Aperture: f/2.8
Diaphragm: Fully automatic, f/2.8-f/16
Construction: 6 elements in 5 groups
Angle of View: 29°
Minimum Focus: 2.6 feet
Filter Thread Diameter: 55mm
Weight: 15 3/8 ounces



Photograph taken with soft-focus control ring at #1 setting.



Photograph taken with soft-focus control ring at #2 setting.



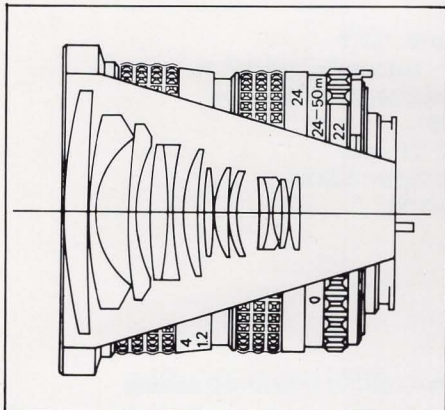
Photograph taken with soft-focus control ring at #3 setting.

Minolta Zoom Lenses

The convenience and fast operation that only zooms can provide, plus optical quality rarely achieved in zoom lenses.

24-50mm f/4 MD Zoom

This outstanding, close-focusing lens features one of the widest focal length ranges for a wide-angle zoom. It achieves this with uncompromising optical performance from 24 to 50mm in a remarkably compact design that weighs under one pound. The 24-50mm lens permits precise compositional control in wide-angle photography. This efficient, versatile optic is ideal for the illustrator and photojournalist.

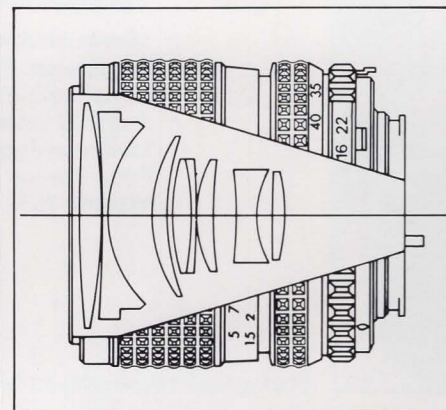


24-50mm Zoom Specifications

Maximum Aperture: f/4
Diaphragm: Fully automatic, f/4-f/22
Construction: 13 elements in 11 groups
Angles of View: 84° to 47°
Minimum Focus: 2.3 ft.
Focusing/Zooming Method: Dual control
Filter Thread Diameter: 72mm
Weight: 13¹⁵/₁₆ oz.

35-70mm f/3.5 MD Zoom

The 35-70mm zoom is a versatile lens for general photography. Compact and lightweight, this lens offers a highly useful zoom range. Accurate focus is maintained throughout the entire zoom range. The 35-70mm zoom gives quality that is comparable to fine fixed-focal-length lenses.

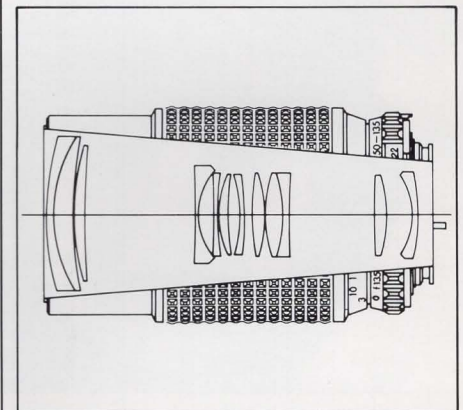


35-70mm Zoom Specifications

Maximum Aperture: f/3.5
Diaphragm: Fully automatic, f/3.5-f/22
Construction: 8 elements in 7 groups
Angles of View: 63° to 34°
Minimum Focus: 3.3 ft.
Focusing/Zooming Method: Dual Control
Filter Thread Diameter: 55mm
Weight: 12⁷/₈ oz.

50-135mm f/3.5 MD Zoom

Remarkably light and compact, this lens serves as an intermediate range lens. With one-handed focus and zoom control, the 50-135mm is ideally suited for portraiture and photojournalism. Hardly larger than a conventional 135mm lens, this zoom will focus to just under 5 feet and offers consistently excellent optical performance throughout the zoom range.

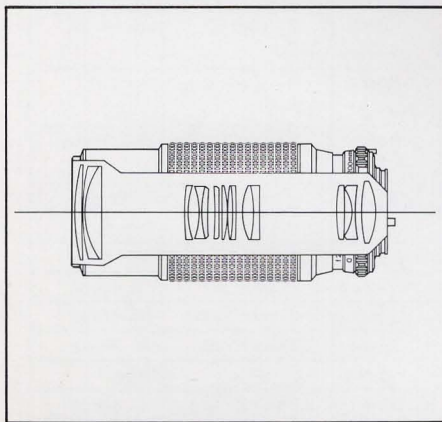


50-135mm Zoom Specifications

Maximum Aperture: f/3.5
Diaphragm: Fully automatic, f/3.5-f/22
Construction: 12 elements in 10 groups
Angles of View: 47° to 18°
Minimum Focus: 4.9 ft.
Focusing/Zooming Method: Single Control
Filter Thread Diameter: 55mm
Weight: 1 lb., ¹⁵/₁₆ oz.

75-200mm f/4.5 MD Zoom

An almost universally useful lens, this remarkable compact, lightweight zoom singlehandedly takes the entire short-through-medium telephoto range. Countless applications from portraiture to sports shots can be done with this lens. A minimum focus distance of 4 ft. helps make this an outstanding medium zoom.

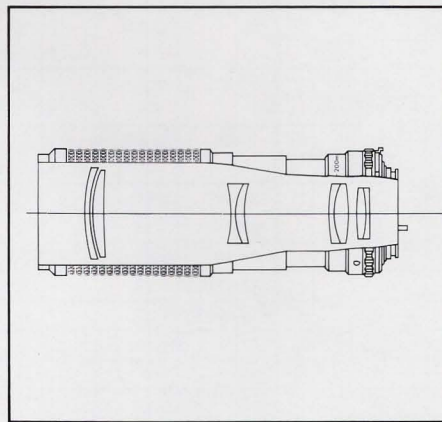


75-200mm Zoom Specifications

Maximum Aperture: f/4.5
Diaphragm: Fully automatic, f/4.5-f/22
Construction: 15 elements in 11 groups
Angles of View: 32° to 12° 30'
Minimum Focus: 3.9 ft.
Focusing/Zooming Method:
Single Control
Filter Thread Diameter: 55mm
Weight: 1 lb., 6¼ oz.

100-200mm f/5.6 MD Zoom

This telephoto zoom lens offers a 2:1 zoom ratio with single focus/zoom control for fast, accurate composing. Slim and lightweight, this economical 100-200mm zoom lens is great for sports shots and nature photography. And, it offers excellent image quality throughout its range.



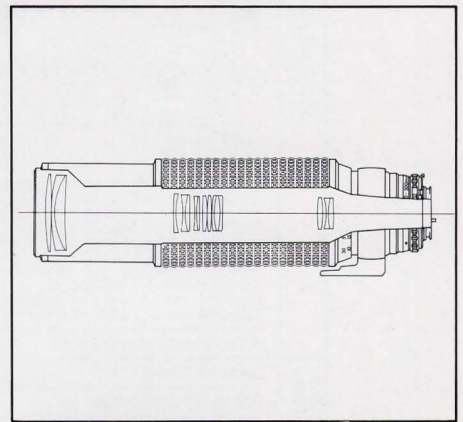
100-200mm Zoom Specifications

Maximum Aperture: f/5.6
Diaphragm: Fully automatic, f/5.6-f/22
Construction: 8 elements in 5 groups
Angles of View: 24° to 12° 30'
Minimum Focus: 8.2 ft.
Focusing/Zooming Method:
Single Control
Filter Thread Diameter: 55mm
Weight: 1 lb., 4⅞ oz.

100-500mm f/8 MD Zoom

The 100-500mm delivers an amazing 5:1 zoom ratio and powerful magnification in an impressively compact design, a natural choice for nature and sports work. The supplied accessory close-up achromat attachment gives this lens a 4.5 foot minimum focus.

The 100-500mm has a built-in tripod collar that rotates to any position 360° around the barrel making format changing from horizontal to vertical fast and convenient.



100-500mm Zoom Specifications

Maximum Aperture: f/8
Diaphragm: Fully automatic, f/8-f/32
Construction: 16 elements in 10 groups
Angles of View: 24° to 5°
Minimum Focus: 8.2 ft. unaided, 4.5 ft. with supplemental close-up achromat attachment
Focusing/Zooming Method:
Single Control
Filter Thread Diameter: 72mm
Weight: 4 lb., 7⅝ oz.

NOTE: Specifications subject to change without notice.

Minolta Lens Specifications

LENS		ELEMENTS	GROUPS	ANGLE OF VIEW	MINIMUM FOCUS	MINIMUM F/STOP	FILTER MOUNT DIAMETER	DIMENSIONS (DIAM. X LENGTH)	WEIGHT
Fisheye	7.5mm f/4 MD Fisheye	12	8	180°	1.6 ft. (Fixed)	f/22	Built-in	2 ¹¹ / ₁₆ x 2 ¹ / ₂ in.	12 ³ / ₁₆ oz.
	16mm f/2.8 MD Fisheye	11	8	180°	1 ft.	f/22	Built-in	2 ³ / ₁₆ x 2 ¹ / ₂ in.	15 ¹ / ₂ oz.
Wide Angle	17mm f/4 MD	11	9	104°	0.8 ft.	f/22	72mm	3 x 2 ¹ / ₁₆ in.	11 ⁷ / ₁₆ oz.
	20mm f/2.8 MD	10	9	94°	0.8 ft.	f/22	55mm	2 ¹ / ₂ x 1 ¹¹ / ₁₆ in.	8 ⁵ / ₁₆ oz.
	24mm f/2.8 MD	9	7	84°	1 ft.	f/22	55mm	2 ¹ / ₂ x 1 ⁵ / ₁₆ in.	9 ¹¹ / ₁₆ oz.
	28mm f/2 MD	10	9	75°	1 ft.	f/22	55mm	2 ⁵ / ₈ x 2 ³ / ₈ in.	12 ³ / ₁₆ oz.
	28mm f/2.8 MD	7	7	75°	1 ft.	f/22	49mm	2 ¹ / ₂ x 1 ¹¹ / ₁₆ in.	6 ³ / ₈ oz.
	28mm f/2.8 MD Minolta/Celtic	7	7	75°	1 ft.	f/22	49mm	2 ¹ / ₂ x 1 ¹¹ / ₁₆ in.	6 ³ / ₈ oz.
	35mm f/1.8 MD	8	6	63°	1 ft.	f/22	49mm	2 ¹ / ₂ x 1 ⁷ / ₈ in.	8 ⁵ / ₁₆ oz.
	35mm f/2.8 MD	5	5	63°	1 ft.	f/22	49mm	2 ¹ / ₂ x 1 ¹ / ₂ in.	5 ¹³ / ₁₆ oz.
Normal	45mm f/2 MD	6	5	51°	2 ft.	f/16	49mm	2 ¹ / ₂ x 1 ³ / ₁₆ in.	4 ⁷ / ₁₆ oz.
	50mm f/1.2 MD	7	6	47°	1.5 ft.	f/16	55mm	2 ⁹ / ₁₆ x 1 ¹³ / ₁₆ in.	11 ¹ / ₈ oz.
	50mm f/1.4 MD	7	6	47°	1.5 ft.	f/16	49mm	2 ¹ / ₂ x 1 ⁹ / ₁₆ in.	7 ³ / ₄ oz.
	50mm f/1.7 MD	6	5	47°	1.5 ft.	f/16	49mm	2 ¹ / ₂ x 1 ⁷ / ₁₆ in.	5 ⁵ / ₈ oz.
Medium Telephoto	85mm f/1.7 MD	6	5	29°	3.3 ft.	f/22	55mm	2 ¹³ / ₁₆ x 2 ⁷ / ₁₆ in.	16 oz.
	85mm f/2 MD	6	5	29°	2.8 ft.	f/22	49mm	2 ¹ / ₂ x 2 ¹ / ₈ in.	9 ⁷ / ₈ oz.
	100mm f/2.5 MD	5	5	24°	3.3 ft.	f/22	55mm	2 ¹ / ₂ x 2 ¹ / ₂ in.	12 ⁷ / ₈ oz.
	135mm f/2.8 MD	4	4	18°	4.9 ft.	f/22	55mm	2 ¹ / ₂ x 3 ¹ / ₄ in.	18 oz.
	135mm f/3.5 MD	4	4	18°	4.9 ft.	f/22	49mm	2 ¹ / ₂ x 3 ⁷ / ₁₆ in.	14 ¹ / ₈ oz.
	135mm f/3.5 MD Minolta/Celtic	4	4	18°	4.9 ft.	f/22	55mm	2 ¹ / ₂ x 3 ⁷ / ₁₆ in.	14 ¹ / ₈ oz.
Telephoto	200mm f/2.8 MD	5	5	12°30'	6 ft.	f/32	72mm	3 ¹ / ₁₆ x 5 ¹ / ₄ in.	1 lb. 8 ¹¹ / ₁₆ oz.
	200mm f/4 MD	5	5	12°30'	8.2 ft.	f/32	55mm	2 ¹ / ₂ x 5 ¹ / ₈ in.	1 lb. 2 ³ / ₁₆ oz.
	300mm f/4.5 MD	7	6	8°10'	9.8 ft.	f/32	72mm	3 ¹ / ₁₆ x 7 in.	1 lb. 9 oz.
	300mm f/5.6 MD	5	5	8°10'	14.8 ft.	f/32	55mm	2 ⁹ / ₁₆ x 7 ⁹ / ₁₆ in.	1 lb. 8 ¹ / ₂ oz.
	400mm f/5.6 MD Apo	7	6	6°10'	16.4 ft.	f/32	72mm	3 ¹ / ₄ x 10 ¹ / ₈ in.	3 lb. 2 ¹³ / ₁₆ oz.
	600mm f/6.3 MD Apo	9	8	4°10'	16.4 ft.	f/32	Rear-mounted	4 ¹ / ₄ x 14 ¹ / ₁₆ in.	5 lb. 4 ⁵ / ₈ oz.
Mirror Telephoto	250mm f/5.6 RF	6	5	10°	8.2 ft.	f/16 ND Filter	Rear-mounted	2 ⁵ / ₈ x 2 ⁵ / ₁₆ in.	8 ¹³ / ₁₆ oz.
	500mm f/8 RF	6	5	5°	13.1 ft.	f/16 ND Filter	Rear-mounted	3 ¹ / ₄ x 3 ⁷ / ₈ in.	1 lb. 5 ¹ / ₈ oz.
	800mm f/8 RF	8	7	3°10'	26.2 ft.	f/16 ND Filter	Rear-mounted	4 ¹⁵ / ₁₆ x 6 ⁹ / ₁₆ in.	4 lb. 3 oz.
	1600mm f/11 RF	6	5	1°30'	65.6 ft.	f/22 ND Filter	Rear-mounted	7 ¹ / ₁₆ x 12 ¹¹ / ₁₆ in.	15 lb. 1 ⁵ / ₈ oz.
Zoom	24-50mm f/4 MD Zoom	13	11	84-47°	2.3 ft.	f/22	72mm	2 ¹⁵ / ₁₆ x 2 ³ / ₄ in.	13 ¹⁵ / ₁₆ oz.
	35-70mm f/3.5 MD Zoom	8	7	63-34°	3.3 ft.	f/22	55mm	2 ⁵ / ₈ x 2 ⁹ / ₁₆ in.	12 ⁷ / ₈ oz.
	50-135mm f/3.5 MD Zoom	12	10	47-18°	4.9 ft.	f/22	55mm	2 ¹¹ / ₁₆ x 4 ⁵ / ₈ in.	1 lb. 1 ⁵ / ₁₆ oz.
	75-200mm f/4.5 MD Zoom	15	11	32-12°30'	3.9 ft.	f/22	55mm	2 ³ / ₄ x 6 ¹ / ₈ in.	1 lb. 6 ¹ / ₄ oz.
	100-200mm f/5.6 MD Zoom	8	5	24-12°30'	8.2 ft.	f/22	55mm	2 ¹ / ₂ x 6 ¹³ / ₁₆ in.	1 lb. 4 ¹ / ₈ oz.
	100-500mm f/8 MD Zoom	16	10	24-5°	8.2 ft.	f/32	72mm	3 ⁹ / ₁₆ x 13 in.	4 lb. 7 ⁵ / ₈ oz.
Special Purpose	24mm f/2.8 MD VFC	9	7	84°	1 ft.	f/22	55mm	2 ⁵ / ₈ x 2 in.	12 oz.
	35mm f/2.8 Shift CA	9	7	63°	1 ft.	f/22	55mm	3 ⁹ / ₁₆ x 2 ¹³ / ₁₆ in.	1 lb. 3 ³ / ₄ oz.
	85mm f/2.8 Varisoft	6	5	29°	2.6 ft.	f/16	55mm	2 ³ / ₄ x 3 ¹ / ₈ in.	15 ³ / ₁₆ oz.
Macro	50mm f/3.5 MD Macro	6	4	47°	9 in.	f/22	55mm	2 ¹ / ₂ x 2 ³ / ₁₆ in.	7 ¹ / ₄ oz.
	100mm f/4 MD Macro	5	4	24°	1.5 ft.	f/32	55mm	2 ⁵ / ₈ x 3 ¹ / ₂ in.	13 ³ / ₈ oz.
Bellows	12.5mm f/2 Bellows Micro	4	4	25°	20.5X via M-2 adapter	f/16	accessory 55mm	1 ⁵ / ₁₆ x 1 ⁵ / ₁₆ in.	1 ⁷ / ₁₆ oz.
	25mm f/2.5 Bellows Micro	6	4	26°	9.3X via M-2 adapter	f/16	accessory 55mm	1 ⁵ / ₁₆ x 1 ¹ / ₁₆ in.	1 ⁷ / ₁₆ oz.
	50mm f/3.5 Auto Bellows Macro	6	4	47°	3.2X	f/32	55mm	2 ¹ / ₄ x 1 ⁵ / ₁₆ in.	4 ¹ / ₁₆ oz.
	100mm f/4 Auto Bellows Macro	5	4	24°	1:1 magnification	f/32	55mm	2 ¹ / ₄ x 1 ¹ / ₈ in.	5 ⁵ / ₁₆ oz.
	100mm f/4 Auto Bellows	3	3	24°	1:1 magnification	f/32	55mm	2 ¹ / ₂ x 1 ³ / ₈ in.	5 ⁷ / ₁₆ oz.

Minolta Enlarging Lenses

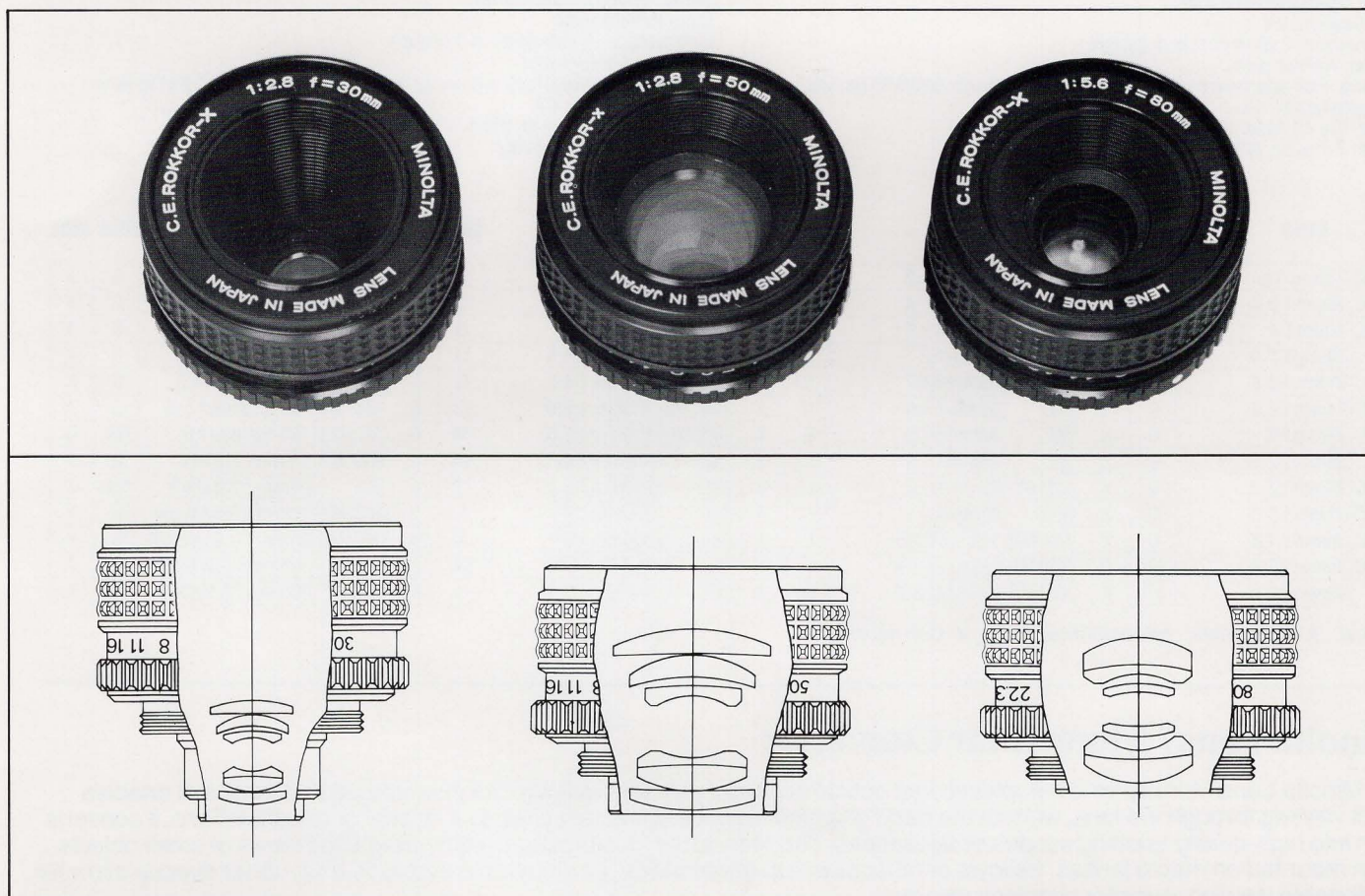
Unusually high optical performance coupled with several convenience features make these lenses the choice for professional quality enlarging.

Designed to meet the requirements of the most discriminating user, Minolta C.E. Rokkor-X lenses offer superior computer-designed optics with easy-to-use operation for darkroom efficiency. The Minolta C.E. Rokkor-X lenses come in three focal lengths to cover the most popular film formats. The 30mm f/2.8 is made for subminiature (16mm) and 110 film, the 50mm f/2.8 is for enlarging negatives up to the 35mm format and the 80mm f/5.6 will handle negatives to 6 x 7 cm (2¼ x 2¾ in.). All deliver high resolution and contrast with freedom

from distortion along with extremely flat field projection. Coated optics, rare earth glass and computer lens design contribute to their superb color correction and sharpness.

The fine optics are housed in equally refined mounts. The use of the standard 39mm Leica thread assures the widest enlarger compatibility. Oversized internally illuminated f/stops help prevent improperly set lens apertures. Two aperture scales, one on each side of the lens, provide easy f/stop readout regardless of lens position.

Positive click-stop aperture ring sets precise f/stop. Pulling away from the mount releases the click-stop mechanism to allow continuous fine aperture adjustment. This continuous control is especially important with color analyzer use. Pushing the ring toward the mount restores click-stop operation. Click or clickless, the Minolta C.E. Rokkor-X offers linear light transmission thanks to its smooth six-bladed diaphragm. The rubber waffle grip styling makes for positive handling and easy adjustment.



Minolta 30mm C.E.

Specifications

Format: 16mm and 110
Mount: 39mm Leica screw thread
Maximum Aperture: f/2.8
Minimum Aperture: f/22
Construction: 6 elements in 5 groups
Coating: Amber
Size: 2³/₁₆ x 2 in.
Weight: 4¹³/₁₆ oz.

Minolta 50mm C.E.

Specifications

Format: Up to 35mm
Mount: 39mm Leica screw thread
Maximum Aperture: f/2.8
Minimum Aperture: f/22
Construction: 6 elements in 5 groups
Coating: Amber
Size: 2³/₁₆ x 1⁵/₈ in.
Weight: 5⁷/₈ oz.

Minolta 80mm C.E.

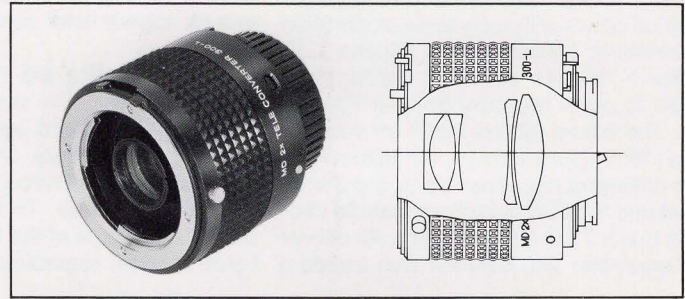
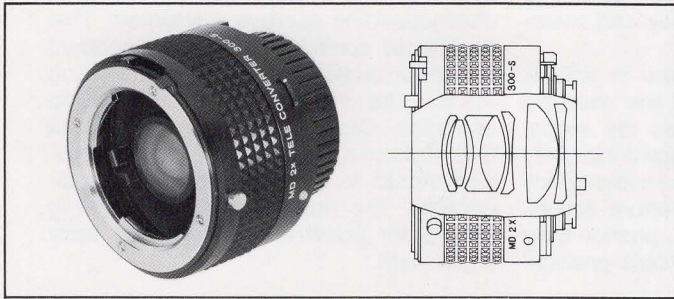
Specifications

Format: Up to 2¼ x 2¾ in.
Mount: 39mm Leica screw thread
Maximum Aperture: f/5.6
Minimum Aperture: f/45
Construction: 6 elements in 4 groups
Coating: Amber and Magenta
Size: 2³/₁₆ x 1½ in.
Weight: 5½ oz.

Minolta Lens Accessories

MD 2X Tele Converter 300S/300L

Add on a Tele Converter to double the focal length of a lens. The 300S Tele Converter is primarily designed for lenses of 300mm or shorter, while the 300L Tele Converter provides optimum image quality when used with long tele lenses. These Minolta Tele Converters provide full aperture metering and maintain automatic exposure control in both aperture- and shutter-priority modes. Both feature Minolta's patented Achromatic coating. See chart below for specific applications of each Minolta 2X Tele Converter.



300S Specifications:

Magnification: 2X
 Construction: 7 elements in 6 groups
 Coating: Achromatic
 Metering: Full aperture metering; metercoupled with MC/MD lenses
 Exposure factor: 4X
 Size: 2-9/16 x 1-5/8 in. (65.5 x 41.5mm)
 Weight: 7-7/16 oz. (210g)

300L Specifications:

Magnification: 2X
 Construction: 5 elements in 3 groups
 Coating: Achromatic
 Metering: Full aperture metering; meter coupled with MC/MD lenses
 Exposure factor: 4X
 Size: 2-9/16 x 2-1/16 in. (65.5 x 52.5mm)
 Weight: 8-7/16 oz. (240g)

MD or MC	LENS	300S	300L	MD or MC	LENS	300S	300L	MD or MC	LENS	300S	300L	MD or MC	LENS	300S	300L
MD/MC	7.5mm f/4	G	X	MD	50mm f/1.2	G	X	MD	200mm f/2.8	G	A	MD	35-70mm f/3.5	G	X
MD/MC	16mm f/2.8	G	X	MD/MC	50mm f/1.4	G	X	MC	200mm f/3.5	G	A	MC	40-80mm f/2.8	G	X
MD/MC	17mm f/4	G	X	MD/MC	50mm f/1.7	G	X	MD/MC	200mm f/4	G	G	MD	50-135mm f/3.5	G	A
MD	20mm f/2.8	G	X	MC	50mm f/2	G	X	MC	200mm f/4.5	G	G	MD	75-200mm f/4.5	G	A
MC	21mm f/2.8	G	X	MC	55mm f/1.7	G	X	MD/MC	300mm f/4.5	G	G	MC	80-200mm f/4.5	G	X
MD/MC	24mm f/2.8	G	X	MC	55mm f/1.9	G	X	MD/MC	300mm f/5.6	G	G	MD/MC	100-200mm f/5.6	G	A
MD/MC	28mm f/2	G	X	MC	58mm f/1.2	G	X	MC/MC	400mm f/5.6	NA	G	MD/MC	100-500mm f/8	NA	G
MC	28mm f/2.5	G	X	MC	58mm f/1.4	G	X	MD	600mm f/6.3	NA	G	MD/MC	24mm f/2.8 VFC	G	X
MD/MC	28mm f/2.8	G	X	MD/MC	85mm f/1.7	G	A	RF	250mm f/5.6	G	A	CA	35mm f/2.8 Shift	NA	X
MD/MC	28mm f/3.5	G	X	MD	85mm f/2	G	A	RF	500mm f/8	G	G	MD/MC	50mm f/3.5 Macro	G	X
MD/MC	35mm f/1.8	G	X	MD/MC	100mm f/2.5	G	A	RF	800mm f/8	A	G	MD/MC	85mm f/2.8 Varisoft	G	A
MD/MC	35mm f/2.8	G	X	MD/MC	135mm f/2.8	G	A	RF	1600mm f/11	NA	G		100mm f/3.5 Macro	G	A
MD	45mm f/2	G	X	MD/MC	135mm f/3.5	G	A	MD	24-50mm f/4	G	X	MD	100mm f/4 Macro	G	A

G: Good A: Acceptable NA: Not Acceptable X: Can not use

Minolta Lens/Monocular Converter

The Minolta Lens/Monocular is a sophisticated optical accessory for use with Minolta interchangeable lenses. It enables direct viewing through the lens, without the need of a camera body. When attached to a normal or telephoto lens, it converts them into high-quality spotting scopes or telescopes. The Monocular also provides highly-magnified views of small objects when mounted on macro lenses, bellows or other close-up accessories. Its adjustable eyepiece and rubber eyecup allow for comfortable viewing, even for eyeglass wearers.

Lens/Monocular Specifications:

Construction of eye piece lens: 4 elements in 3 groups
 Prism: direct viewing roof prism
 Magnification with normal or telephoto lens: approximately 1/10 the focal length of the lens (i.e. 50mm lens provides 5X magnification)
 Magnification with close-up accessories: approximately 25 times the magnification of the lens and close-up equipment (i.e. 2X life-size reproduction ratio provides 50X magnification)
 Adjustable range of eyepiece: -5 to +3 diopters
 Size: 2 7/16 x 2 in. (62mm x 51mm)
 Weight: 3 11/16 oz. (105g)



Example magnifications when used with various interchangeable lenses

Lens	Magnification range
50mm	5X
100mm	10X
200mm	20X
50-135mm Zoom	5-13.5X
100-200mm Zoom	10-20X
50mm Macro at 1:2	12.5X
50mm Macro at 1:1	25X
50mm Macro & Auto Bellows III	20-90X
50mm Standard & Auto Bellows III	20-80X

Minolta Bellows Lenses

These four lenses are primarily for use with Minolta Bellows Systems. Magnification for these lenses range from 18 times life-size to infinity. All are specially designed and optically corrected for close-up work. Their tapered barrels permit easy illumination and a black finish reduces undesirable reflections. The micro lenses are also designed for use directly on a microscope.

50 mm f/3.5 Auto Bellows Macro Lens



Specifications:

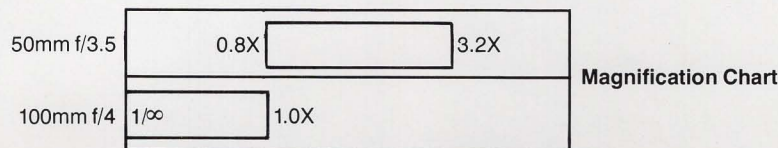
Type: Gauss type, short-mount macro for bellows use
Construction: 6 elements in 4 groups
Diaphragm: Automatic preset, f/3.5-32 with full and half click-stops
Focusing: By bellows and/or focusing rail
Pupil magnification: 0.98X **Size:** 2 1/4 x 1 5/16 in. (57 x 24.5mm)
Coating: Minolta Achromatic **Weight:** 4 1/16 oz. (115g)
Accessories: Supplied: Lens hood (accepts 55mm filters)
 Optional: Holder for gelatin filters

100mm f/4 Auto Bellows Macro Lens



Specifications:

Type: Modified Gauss type short-mount macro tele for bellows use
Construction: 5 elements in 4 groups
Diaphragm: Automatic preset, f/4-32 with full and half click-stops
Focusing: By bellows and/or focusing rail
Pupil magnification: 0.96X **Size:** 2 1/4 x 1 1/8 in. (57 x 28.5mm)
Coating: Minolta Achromatic **Weight:** 5 5/16 oz. (150g)
Accessories: Supplied: Lens hood (accepts 55mm filters)
 Optional: Holder for gelatin filters



12.5mm f/2 Bellows Micro Lens



Specifications:

Type: Einostor type, high-magnification lens for bellows or microscope use
Construction: 4 elements in 4 groups
Diaphragm: Manual, f/2-16
Focusing: By bellows and/or focusing rail
Pupil magnification: 1.26X
Coating: Single **Size:** 1 5/16 x 1 5/16 in. (33 x 23.5mm)
Mount: 20.32mm screw-type **Weight:** 17/16 oz. (40g)
Accessories: Supplied: Aperture-adjusting lever
 Optional: M-1 and M-2 adapters with Minolta SLR bayonet mount; gelatin filter holder

25mm f/2.5 Bellows Micro Lens



Specifications:

Type: Gauss type high-magnification lens for bellows or microscope use
Construction: 6 elements in 4 groups
Diaphragm: Manual f/2.5 to 16
Focusing: By bellows and/or focusing rail
Pupil magnification: 1.18X
Coating: Single **Size:** 1 5/16 x 1 1/16 in. (33.5 x 17mm)
Mount: 20.32mm screw-type **Weight:** 17/16 oz. (40g)
Accessories: Supplied: Aperture-adjusting lever
 Optional: M-1 and M-2 adapters with Minolta SLR bayonet mount; gelatin filter holder



	1/∞	1/1	5/1	10/1	20/1	30/1
12.5mm f/2 + M-1 Adapter				8.0X		18.0X
12.5mm f/2 + M-2 Adapter				10.5X		20.5X
25mm f/2.5 + M-1 Adapter		3.2X		8.1X		
25mm f/2.5 + M-2 Adapter		4.4X		9.3X		

NOTE: Specifications subject to change without notice.
 See pages D7-D10 for additional information on Minolta Close-up equipment.