

Tokina

2002 / 2003

PRODUCT CATALOG



Tokina

Distributed by

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Visionary technology makes a difference you can see.

Tokina's proprietary AT-X technology has evolved toward optical perfection for more than 20 years. Since our mission began in 1981 we have made continuous advances. Each new model is a further refinement in a continuing legacy of excellence in design and materials. The current AT-X PRO series continues this evolution of excellence by using the most state-of-the-art technology anywhere.

More Quality Than Meets The Eye.

The Tokina difference comes from special material selection, and assembly technology that employs micron-unit quality control. This ensures optimum consistency while maintaining the highest quality for every lens. Worldwide, both professionals and knowledgeable photography enthusiasts rely on Tokina lenses.

AT-X Technology

AT-X comes from our original concept of "Advanced Technology-Extra." This vision encompasses a special group of lenses that are manufactured without

compromise, using the most advanced design and fabrication technologies available. The use of unique and unprecedented optical systems independently pioneered by Tokina, has made advanced features, high performance, lightweight, and compact designs a reality. Of course, we have also given full attention to ergonomics and handling. To any user, AT-X means excellent performance through superior technology.



Aluminum Alloy Die Cast Model

AT-X GOLD RING PRO SERIES

The Eye of the Camera is Faithful to the Eye of the Creator.



Flexible Printed Circuit Board

give smooth operation and durability to operating rollers and internal focus cams.

4 Brass is used in the lens mount to maintain high precision. Other mechanisms are plated with hard chrome for optimum durability.

Mechanisms

- 1 All metallic moving parts are coated with a special lubricant to improve durability.
- 2 Tokina's independently-developed technology main-



Floating Element Assembly

tains the high precision of mechanical fittings, accurately measured in microns.

- 3 Micron tolerances also

AT-X280 AF PRO



Exterior Finish

- 1 PRO models have hardened Alumite (Armalite) finish to increase durability and give a top-quality feel and finish.
- 2 Ergonomic designs emphasize control, grip and ease of operation with textured rubber used on zoom and focus barrels. These are original Tokina materials,

designed to give many years of faithful service without deterioration.

Operation

- 1 Use of our special alloy Duralumin for metal parts provides excellent durability, stabilizes torque and provides better handling. It also maintains smoother operation under all conditions.
- 2 Our special lubricant is used on moving parts, formulated to perform even under extremes of temperature.



SD (Super Low Dispersion) Glass

Lens Coatings

Resistance to flare and ghosting, plus faithful color reproduction are all achieved by a unique coating technique - yet another reason for Tokina's reputation for incredibly-sharp and clean images.



The ability of the focus ring to be pushed forward and disengaged allows maximum autofocus speed and efficiency. The ring can be pulled back and reengaged for manual focusing with just the right amount of resistance.



Auto Focus



Manual Focus



The newly improved one-touch focus clutch allows the focus to be moved quickly and easily from the AF position back into the MF position. In Nikon and Canon mount, the lens can be set for manual focusing without an AF/MF switch or setting the body to the AF position.



Auto Focus



Manual Focus



The two main methods of lens focusing are either the complete straight forward movement of elements (used mainly with single focal length lenses), or the rotation of the entire front lens barrel group (used mainly with zoom lenses). The internal focusing system used by Tokina moves each lens group, but does not change the overall length of the lens - this is especially useful with telephoto designs.

The internal focusing system has a number of advantages, including

- 1 Faster focusing
- 2 Improved handling due to fewer movements near the center of gravity
- 3 More compact lens designs
- 4 Superior use of filters as the front filter thread does not rotate

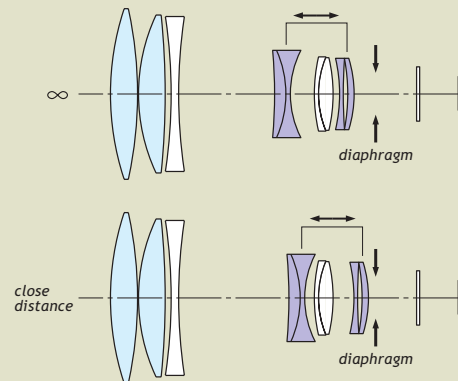
IF (internal focus system)

By movement of forward elements : AT-X 235AF PRO, AT-X 828AF PRO.

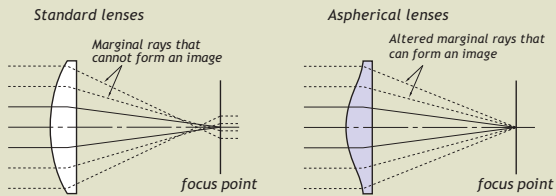
IRF (internal rear focus system) Optical Pat.

By movement of rear elements : AT-X 300AF PRO.

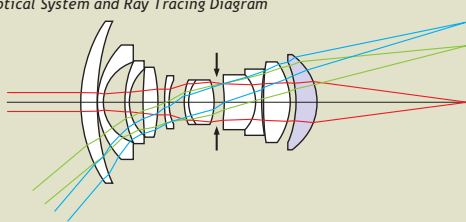
AT-X 300AF PRO (IRF)



Standard lenses are made up from a combination of spherical lenses. However, there can be problems with such lenses as light entering the center of the lens and that entering the edge may not be perfectly focused at the same point. That presents limits to performance in wide diameter lenses and super wide-angle lenses. Tokina uses aspherical glass lenses in many of its lenses. In addition to correcting spherical astigmatism, these lenses fully correct light quantity and distortion at the edge of the image and provide excellent results when used in combination with floating elements. Through technical cooperation with Hoya, Tokina has succeeded in producing high quality molded glass elements with a greater aspherical shape than any other lens so far. This technique is unparalleled in its technological sophistication and excellence.

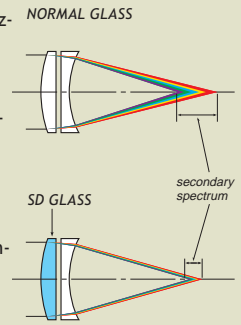


Optical System and Ray Tracing Diagram

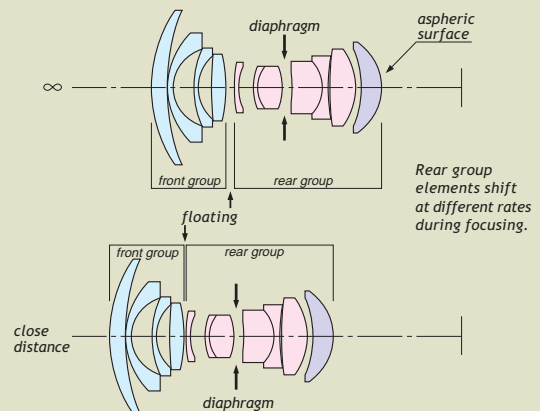


This lens encompasses Tokina's new large diameter F&R Aspherical molded glass elements of 50mm diameter at the front and 20mm at the rear. These give outstanding performance with even illumination in the corners and correction of distortion and aberration.

Lenses in the range with the SD mark use Super-low Dispersion glass which minimizes the secondary spectrum caused by chromatic aberration. Basically, these lenses use FK01 and FK02 optical materials which gives them SD (APO) qualities. This provides excellent image quality in telephoto lenses of 200mm or more by correcting color aberration across the entire picture and bringing all colors into focus accurately at the film plane.



When designing a lens, Tokina calibrates its astigmatism at all points between minimum focus and infinity so that it will give the best results at all settings. However, when there are large differences between the focus limits, perfect calibration is not possible. A floating element system incorporates optical elements which move in proportion to the focus settings, so the astigmatism can be corrected. Many Tokina lenses use the floating system to provide optimum correction of astigmatism from minimum focus to infinity.



AT-X PRO Series

Auto Focus

AF17mm f/3.5

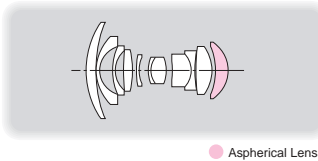
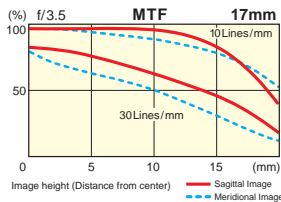
AT-X 17AF PRO

TO FIT MINOLTA • NIKON • CANON



An angle of view wider than human eyesight! From the moment you look through your viewfinder, this outstanding AT-X optic will give you a dramatic new perspective on the world. This super wide-angle lens features our exclusive Focus Clutch Mechanism for faster, more responsive auto focus (AF), and a manual focus action that is smoother, more precise, than what is normally found in today's AF lenses.

It utilizes premium-quality HLD (High refraction Low Dispersion) glass elements as well as an all-glass molded aspherical lens element that provides even illumination across the entire film plane. The floating element system maintains high resolution and contrast from infinity to its minimum focusing distance of 10 inches (25 cm). Lens barrels are all aluminum with a chrome-plated brass mount plate. The 77 mm filter thread is the same size as four other AT-X PRO series lenses, making it possible to cover from 17 mm to 200 mm with just one size of filters.



AF20~35mm f/2.8

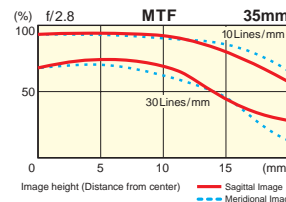
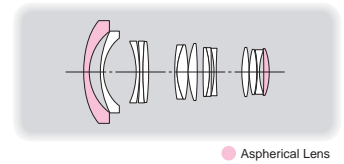
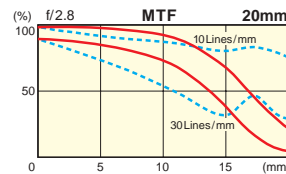
AT-X 235AF PRO (IF)

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The AT-X 235 AF PRO is a wide-angle zoom lens that will produce dynamic, edge-to-edge sharp images. Continuing the tradition of AT-X, this AT-X PRO series lens boasts a solid, all metal construction. The fast, constant maximum aperture of f/2.8 makes wide-angle photography, like reportage or landscape, effortless in difficult lighting situations such as indoors or at dusk.

Two pioneering all-glass aspherical lens elements, front and rear, are employed to eliminate wide-angle spherical astigmatism and correct edge/marginal light rays for better image quality. Tokina's Focus Clutch Mechanism allows maximum AF response and sensitivity while focusing manually.



AT-X PRO Series

Auto Focus

Photographers will be inspired to explore this new generation, wide aperture Tokina AT-X287PROSV.

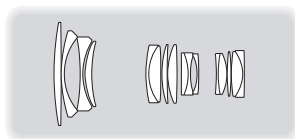
AF28-70mm f/2.8 AT-X287PROSV

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The next generation of AT-X is the AT-X PRO SV series. The first lens of that series is the AT-X 287 AF PRO SV, a 28-70 f/2.8 auto focus. Its cornerstone is Tokina's heritage of HLD optical glass. Advancements in fabrication technology and the greater use of composite material have created a lens that is lighter in weight yet more substantial in value. The constant f/2.8 aperture makes focusing and shooting in low light situations much easier. An internal focusing system coupled to a Focus Clutch Mechanism yields quick and quiet auto focus as well as smoothly damped manual focus action.

- 16 Elements in 12 Groups
- Filter size: ø77mm
- Minimum Focus Distance: 0.5m
- Bayonet lens hood: BH776



AF28~80mm f/2.8

AT-X 280AF PRO

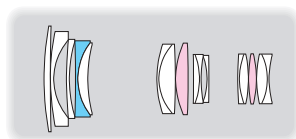
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You asked. We listened. You asked for lighter weight in the lens that you use most often, yet you wanted the same famous AT-X quality and durability. Tokina's answer is the AT-X 280 AF PRO. To maintain strength, duraluminum alloy and chrome plated brass mount plate was used as its foundation. Then modern composite material formed the outer barrels, focus and zoom rings. The result was a 28-80 f/2.8 lens that weighed less than its predecessor, but maintained AT-X quality, and strength.

SD glass, and inclusion of an all-glass molded aspherical element in its double aspheric optical design completely corrects aberrations, providing high contrast and sharpness right to the edges. Tokina has sped up AF and improved handling by incorporating a One-Touch Focus Clutch Mechanism, which allows the focus ring to be moved from AF to manual focus with just a quick-snap movement of the manual focus ring.

- 16 Elements in 11 Groups
- Filter size: ø77mm
- Minimum Focus Distance: 0.5m
- Bayonet lens hood: BH-775(Dedicated)



● SD Lens ● Aspherical Lens



Lens Hood BH-775

Large lens hoods block stray light that can reflect off the surface of the element causing image degrading flare. A deep, cut-out design hood like the BH-775 does a better job of shading the lens.

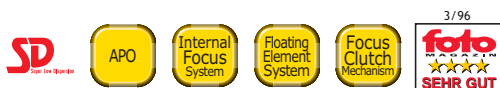
AT-X PRO Series

Auto Focus

AF80~200mm f/2.8

AT-X 828AF PRO

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This lens is a workhorse that can be counted on to perform exceptionally under a wide range of photographic conditions. Popular with wild-life photographers because of its durability and proven optical design, the AT-X 828 AF PRO has been in Tokina's AT-X series since its inception and has evolved through several generations. The unique floating element system focuses two different element groups at once, providing faster AF speed and uniformly high image quality from close focus to infinity. SD glass performs apo-chromatic (APO) correction to focus all colors of light on the film plane for sharp photographs.

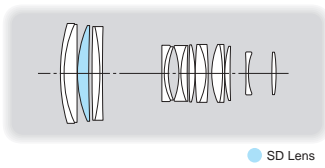
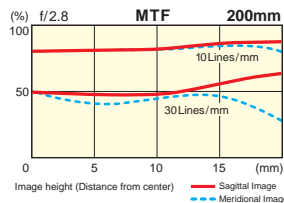
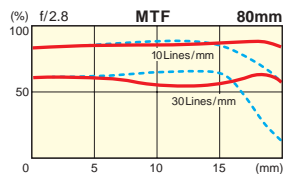


Photo by John Herbst

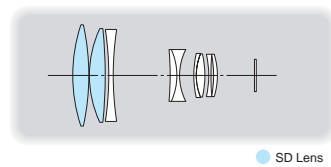
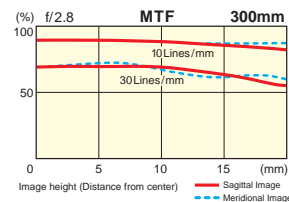
AF300mm f/2.8

AT-X 300AF PRO (IRF)

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The AT-X 300 AF PRO is a wide aperture telephoto lens, providing high definition and super sharpness even with the aperture wide open at f/2.8. Two large SD glass (APO) elements in the first optical group correct chromatic aberrations and create accurate, focused color. This high optical performance is maintained down to its minimum focus distance of 8 feet (2.4 meters). The IRF (Internal Rear Focusing) system yields quick and reliable auto focus. The external textured "Armalite" finish and rubber grips improve handling as well as adding a high-end look to this high-end performing lens.



AT-X Series

Auto Focus

The Ultimate Traveling Lens.

AF24~200mm f/3.5-5.6 AT-X 242AF

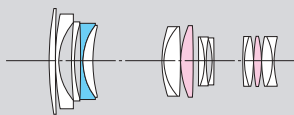
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Tokina's ultimate traveling lens that can do it all! Its range, from 24 mm all the way to 200 mm, is the first and currently the widest on the market starting from the super-wide angle of 24 mm. Since it's a parfocal lens, focus is maintained when zooming from telephoto to wide-angle settings.

And, focus is always as sharp as can be, with two aspherical lens elements (each molded as one piece of crystal clear optical glass, rather than the cheaper methods of other manufacturers; laminating a resin around a glass core) and one SD glass element all designed to help you bring home the crisp clear shots you want.

The internal focusing mechanism gives this lens a very fast auto focus, and means the 72 mm filter threads do not move. This is a great advantage, when a special effects filter such as a circular polarizer is used, because it is not necessary to readjust the filter every time the lens changes focus.



● SD Lens ● Aspherical Lens

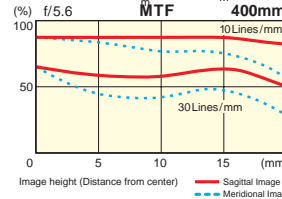
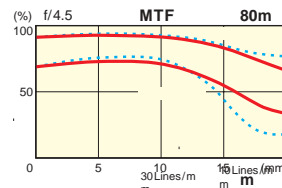
AF80~400mm f/4.5~5.6 AT-X 840AF-II

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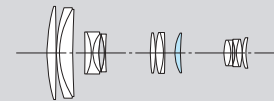


Another first from Tokina, a complete range of lenses in one! This is the worlds first 80-400 mm f/4.5-5.6 lens that can boast a brightness of f/5.6 even at 400 mm. And, it's still the world's most compact 80-400.

The AT-X 840 AF-II model adds a built-in tripod collar and refinements in the auto focus gearing for a smoother AF. The optics incorporate SD (APO) glass and an internal flare cutting mechanism, which removes unnecessary light (flare) and gives clean sharp images.



Using the included bayonet lens hood (Tokina always recommends using a lens hood) further eliminates unwanted flare. All metal barrel construction, chrome plated brass mount plate, and SD glass all combine to create an AT-X lens built for traveling!



● SD Lens



Optional Close Up Lens

A dedicated close up lens for the AT-X 840AF. When this close up lens is mounted on the front of the lens, the minimum focus distance is reduced to 1.4m-2.5m (ranging from wide angle to telephoto).

*One of Our Most Popular -
A Great Lens at a Great Price.*

AF19~35mm f/3.5~4.5

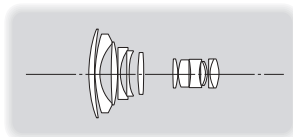
AF 193

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The AF 193 uses high-refraction, low-dispersion (HLD) glass and multi-coated lens elements for outstanding performance in a value-priced lens. It offers easy handling since it is compact and there is no change in overall length when zooming. Special filters can be used with ease, since the front filter thread does not rotate. The AF 193 uses modern composite material barrels making it light weight, which is important, because you'll want this lens with you all the time! For every wide angle application from interiors to panoramas, this is the lens that will help you get the shot you're looking for.

- 13 Elements in 11 Groups
- Filter size: ø77mm
- Minimum Focus Distance: 0.4m
- Bayonet lens hood: BH-775



Lens Hood BH-774

A deep cut out, or "flower" design hood like the BH-774 does a better job of shading a wide angle lens than a traditional shallow ring design. This hood blocks stray light that can cause image degrading flare and internal reflections.



John Herbst, Grizzly Bear Nature Photography using a AT-X 300 AF PRO.

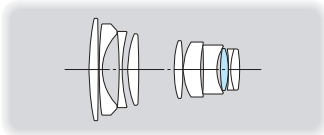
SZ-X Series

Manual Focus

28~70mm f/3.5~4.5

SZ-X 270

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● SD Lens



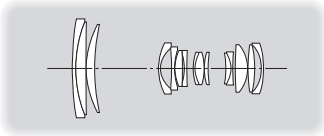
High performance in a very compact zoom lens from wide angle to short telephoto. In macro mode, it allows focusing as close as 0.31m (1 foot) with a 1:4 magnification ratio. An easy to use, all-around lens with a convenient 52mm filter size.



28~105mm f/3.5~4.8

SZ-X 205

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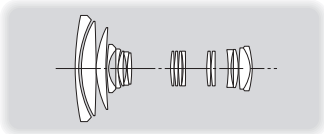


This all purpose lens will provide the avid shooter with a convenient wide to medium focal range in a lightweight package. Its rotary zoom design also offers a 1:5 macro ratio for interesting close-ups. The creative capabilities are only limited by your imagination.

28~200mm f/3.5~5.3

SZ-X 282

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With a zoom ratio of over 7:1, this remarkable lens covers all focal lengths required for virtually any situation. It is less than 109mm (4.3 in.) long and weighs only 690g (24.3oz). Photographic applications range from landscapes and portraits to sports.

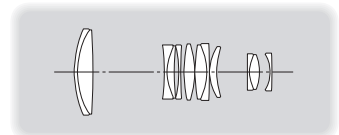
70-210 f/4.5-5.6

SZ-X 721

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Barely 87mm (3.43 in.) long and 450g (15.9 oz) in weight, this is one of the world's smallest telephoto zoom lenses. Its one-touch system holds focus throughout the zoom, while its size is perfect for fast moving hand-held photography. Its range makes it suitable for a wide range of photographic applications.



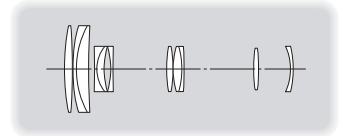
75~300mm f/4.5~5.6

SZ-X 730

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A useful 4x manual focus zoom, this lens covers the entire range from 75mm standard to 300mm telephoto. This lens can easily handle many aspects of photography and a wide range of magnifications in a compact body.



Technical Specifications

LENS	Mount	Optical Construction Elements / Groups	Diagonal Angle of View	Closest Focus Distance from Film Plane (in Macro Mode)	Magnification Ratio in Macro Mode	Aperture Range	Filter Size (mm)	Dimensions (mm) Diameter	Dimensions (mm) Length	Weight (gram)	Lens Hood
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AUTO FOCUS LENSES

AT-X 17AF PRO	17mm f/3.5	M N C	11/9	103° 40'	0.25m	-	f/3.5-f/22	77	88	65	440	BH773
AT-X 235AF PRO	20-35mm f/2.8	M N/D C	15/11	96° 20' - 63° 30'	0.5m	-	f/2.8-f/22	77	84	85.5	585	BH771
NEW AT-X 287 AF PRO SV	28-70 f/2.8	C, M, N-D, P	16/12	75° 20' - 34° 20'	0.5m	1:5	f/2.8-f/22	77	84	108.5	-	-
AT-X 280AF PRO	28-80mm f/2.8	M N/D PC	16/11	75° 20' - 30° 20'	0.5m	1:5	f/2.8-f/22	77	84	120	810	BH775
AT-X 828AF PRO	80-200mm f/2.8	M N/D P C	17/11	30° 20' - 12° 20'	1.8m	-	f/2.8-f/32	77	84	184	1,350	MH774N
AT-X 300AF PRO	300mm f/2.8	M N C	9/7	8° 20'	2.4m	-	f/2.8-f/32	112/35.5	117	213.5	2,040	MH112N
AT-X 242AF	24-200mm f/3.5-5.6	M N/D P C	15/13	84° 10' - 12° 20'	0.8m	1:5.4	f/3.5-f/5.6	72	81.8	89	690	BH-723
NEW AT-X 840AF-II	80-400mm f/4.5-5.6	M N/D P C	16/10	29° 50' - 6° 13'	2.5m	1:5.4	f/4.5-f/32	72	77.2	136	1050	BH724
AF 193	19-35mm f/3.5-4.5	M N/D P C	13/11	98° 40' - 63° 30'	0.4m	-	f/3.5-f/22	77	82.2	77	400	BH774

MANUAL FOCUS LENSES

SZ-X 270	28-70mm f/3.5-4.5	M N P C Y	10/9	75° 20' - 34° 20'	0.7m (0.31m)	1: 4	f/3.5-f/22	52	64	64.7	325	SH522
SZ-X 205	28-105mm f/3.5-4.8	M N P C O Y	15/12	75° 20' - 22° 40'	0.5m	1: 5	f/3.5-f/22	62	65	69.8	380	-
SZ-X 282	28-200mm f/3.5-5.3	M N P C O Y	18/16	75° 20' - 12° 20'	2.5m (1.35m)	1: 5.5	f/3.5-f/22	72	74	109	690	MH721
SZ-X 721	70-210mm f/4.5-5.6	M N P C O Y	12/8	34° 20' - 11° 50'	1.1m	1: 4	f/4-f/22	49	65	87	450	MH521
SZ-X 730	75-300mm f/4.5-5.6	M N P C Y	11/8	32° 10' - 8° 20'	1.7m (1.5m)	1: 3.8	f/4.5-f/22	58	65	152.5	730	MH582
SL 17	17mm f/3.5	M N P C Y	11/9	103° 40'	0.25m	-	f/3.5-f/16	67	70	49.2	305	RH722
SL 28	28mm f/2.8	M N P C O Y	5/5	75° 20'	0.3m	-	f/2.8-f/22	49	63.5	36	160	RH491

Teleconverter

Doubler	2X-Teleconverter	M N P C O	7/6	-	-	-	-	-	63	41.2	200	-
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- 1g = 0.03527 oz
- 10mm = 0.39370 inch
- 1m = 3.28084 feet

- The external appearance and specifications shown in this catalog may be changed without any advance notice.

- Auto Focus Lenses M : MINOLTA AF P : PENTAX AF
N : NIKON AF-S C : CANON AF
N/D : NIKON AF-D

- Manual Focus Lenses M : MINOLTA MD P : PENTAX PK O : OLYMPUS OM
N : NIKON AI-S C : CANON FD Y : YASHICA ML / CONTAX