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HD PENTAX-D FA
70-210mm F4 ED SDM WR

DESCRIPTION	ART. CODE	EAN
HD PENTAX-D FA 70-210mmF4ED SDM WR	21217	0027075300804

HD PENTAX-D FA 70-210mm F4 ED SDM WR: A telephoto zoom lens for use with K-mount digital SLR cameras, featuring the latest HD Coating to further upgrade image quality, and a totally redesigned body

- Compact, lightweight zoom lens with outstanding portability
- HD Coating to enhance imaging power
- Weather-resistant construction, perfect for outdoor photography
- SP Coating to repel stains
- Built-in SDM

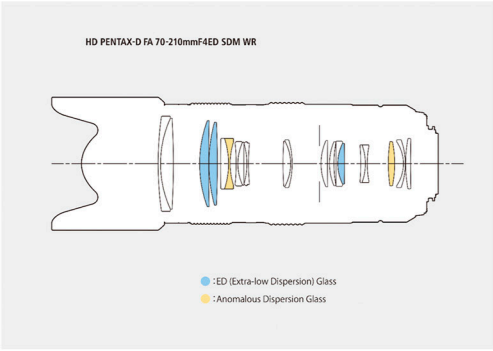
Included Accessories

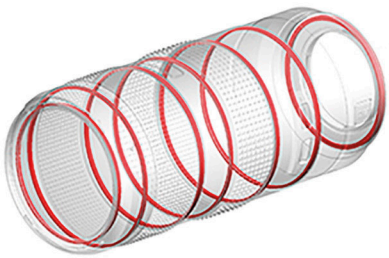
• Lens Hood PH-RBP67	37668 | 027075300811
• Lens Cap O-LC67	31521 | 027075129825
• Lens Mount Cap K	31006 | 027075006508

Optional Accessories

• Soft Case S100-200	37752 | 027075146013

FOCAL LENGTH	70-210mm Equivalent to 107-322mm in 35mm format (when attached to PENTAX APS-C size DSLR cameras)
MAXIMUM APERTURE	F4
MINIMUM APERTURE	F32
LENS CONSTRUCTION	20 elements in 14 groups
ANGLE OF VIEW (DIAGONAL)	34.5° – 11.8° (when attached to PENTAX 35mm full-frame SLR cameras) 23° – 7.7° (when attached to PENTAX APS-C size DSLR cameras)
MOUNT	KAF4
MINIMUM FOCUSING DISTANCE	0.95m (3.1ft.)
MAXIMUM MAGNIFICATION	0.32x
FILTER DIAMETER	67mm
DIAPHRAGM CONTROL	Electromagnetic diaphragm, fully automatic
NUMBER OF DIAPHRAGM BLADES	9, rounded diaphragm (F4-F9.5)
WATER / DUST PROTECTION	7 sealing rings
TEMPERATURE	-10°C～40°C (14°F～104°F)
HUMIDITY	85% or less (no condensation)
MAXIMUM DIAMETER X LENGTH	approx. 78.5mm x 175mm (approx. 3.1in. x 6.9in.)
WEIGHT	approx. 819g / with hood approx. 859g, (approx. 28.9oz. / with hood approx. 30.3oz.)





HD PENTAX-D FA 70-210mm F4 ED SDM WR

A compact, lightweight, high-performance telephoto zoom lens for use with 35mm full-frame DSLR cameras

Designed for use with PENTAX K-mount digital SLR cameras, this high-performance telephoto zoom lens features a compact, lightweight body with weather-resistant construction for great portability in a variety of outdoor applications.

1. Compact, lightweight zoom lens with outstanding portability

Despite its compact, lightweight design weighing approximately 819 grams, this zoom lens covers the image circle of 35mm full-frame digital SLRs, and provides a focal length range of 70mm to 210mm to facilitate handheld outdoor photography. When mounted on an APS-C-format camera, its focal length range is extended to the equivalent of 107mm to 322mm in the 35mm format. Coupled with its compact, lightweight body, it can be easily integrated in any APS-C-format camera system. In its 20-element, 14-group optics, it incorporates three ED (Extra-low Dispersion) glass elements and two anomalous dispersion glass elements to deliver high-contrast, high-resolution images with edge-to-edge sharpness, while effectively compensating for distortion and chromatic and coma aberrations. In addition to a short minimum focusing distance of 0.95 meters, the lens barrel was designed to be extension-free during AF operation to keep the overall dimensions intact. This allows the photographer to enjoy active field photography in a wide range of outdoor applications, including scenic photography, townscape shooting utilizing a beautiful bokeh (defocus) effect in the fore- and background, close-up photography of animals and plants, and sports and wildlife photography where its outstanding portability really comes in handy.

2. HD Coating to enhance imaging power

This lens features PENTAX's latest HD Coating.* Compared to conventional multi-layer coatings, this high-grade, multi-layer coating not only improves light transmittance but also reduces average reflectance in the visible light range by more than 50 percent, minimizing the adverse effects of flare and ghost images even in demanding lighting conditions such as backlighting.

3. Weather-resistant construction, perfect for outdoor photography

This zoom lens features a weather-resistant construction to prevent the intrusion of water into the lens barrel. When mounted on a PENTAX weather-resistant digital SLR camera body, it assures a durable, reliable digital imaging system that performs superbly in demanding shooting settings — even in rain or mist, or at locations prone to water splashes or spray.

4. SP Coating to repel stains

This lens features SP (Super Protect) Coating on its front surface. Applied by means of a PENTAX-exclusive fluorine deposition process, this coating is highly repellent to water, grease and dirt, making it easy to wipe off stains such as fingerprints. This frees the photographer from worries in outdoor photography.

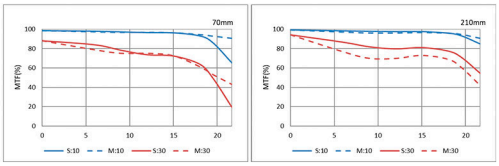
5. Built-in SDM

This lens incorporates a ring-type SDM (Supersonic Direct-drive Motor) to assure quiet, high-speed AF operation and improve operability in outdoor shooting.

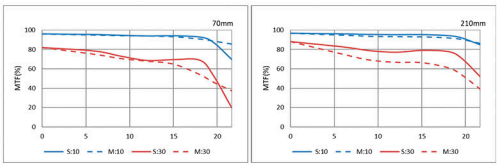
6. Other features

- Quick-Shift Focus System, to provide instant shift to manual-focus operation after locking the subject in focus during AF operation by pressing the shutter-release button halfway down; usable at any time during AF operation
- Two-step focus range limiter, to minimize AF operation time
- Nine-blade, round-shaped diaphragm, to produce a natural, beautiful bokeh defocus) effect, while minimizing the streaking effect of point light sources
- Electromagnetic diaphragm control,* to provide high-precision exposure control during video shooting

* Available when mounted on a PENTAX K-1 Mark II, K-1, K-3 II, K-3, KP, K-70, K-50, K-S2 or K-S2 camera body



The MTF of high frequency wave (30 lines) possess high level from the center. Especially at the tele side, the high level is maintained till the edge. Also, the MTF of the sagittal and meridional lie aside keeping the level high with less image flow from center to the edge phenomenon.



What is MTF Curve?
MTF (Modulation Transfer Function) is one of the index to grade the lens quality. What it does is to scale the contrast of the subject and express it with space frequency.

MTF curve mentioned in this presentation is express as following. Vertical stands for contrast, horizontal stands for the distance from the image center. We align two types of space frequency. One is low-frequency wave which is 10 lines/mm , and high-frequency wave which is 30 lines/mm. In the graph, MTF of S direction (sagittal direction, radiation direction) is in solid line and M direction (meridional direction, concentric circle direction) is in dash line.

It is generally said that when the MTF of low-frequency wave is high, the lens is very clear, and when the MTF of high-frequency wave is high, the lens is very sharp and high resolution.