

# PENTAX

## LENSES AND ACCESSORIES

*The extension of vision*



# QUALITY IN DETAIL



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## | Advantages of the PENTAX system

### | SHARP IMAGES WITH ANY PENTAX LENS

PENTAX DSLR's are equipped with a sensor shift "Shake Reduction" system, which compensates for movement of the camera when shooting in poor lighting conditions or using telephoto lenses.

With a 4-stop benefit, this stabilization ensures sharper images, even in low and difficult lighting situations.

The considerable advantage of the built-in camera body stabilization is that all K-mount lenses are always stabilized.

### | COMPATIBILITY WITH PENTAX K-MOUNT DIGITAL AND 35MM FILM FORMAT LENSES

PENTAX currently has the widest line-up of lenses dedicated to DSLR bodies as the K-mount is compatible with over 215 different lenses (digital and 35mm film format) produced since the founding of PENTAX.

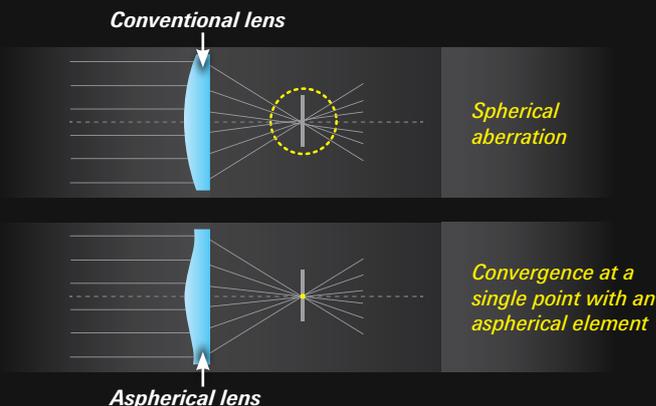
# PENTAX optical technologies

Since 1919 PENTAX has been one of the most innovative manufacturers in the field of optics.



## AL (Aspherical Lenses)

Different to spherical lenses, aspherical lenses do not have a uniformly curved spherical shape. The shape of an aspherical lens is adapted to do a specific task and the curvature of each is individually calculated. The production of these lenses is very complex, and the greatest advantage of aspherical lenses is that several types of optical aberrations can be corrected at once. Aspherical lens elements are used particularly in high quality lenses and allow for the use of fewer lens elements so that a high luminous intensity is achieved.



## ED (Extra-low Dispersion) Glass

Normal glass lenses tend to divide the incident light into its various color components, as a prism would. This happens particularly at the edges, adding unwanted color fringing to the image. The longer the focal length of the lens, the more apparent the fringing effect. ED (Extra-low Dispersion) glass is an exceptionally high-quality specialty glass that prevents this chromatic aberration to a very great extent.



## PENTAX smc

Super Multi Coating is the benchmark of all PENTAX lenses. SMC describes the high quality coatings applied to the lens elements. This consists of seven microscopically thin layers. The light loss at the lens surface, between air and glass, is reduced from 4% to 0.2%.



## HD (High Definition) Coating

The High Definition multi-layer lens coating is a newly developed coating that offers greater light transmittance with reduced reflection to deliver sharp and clear images free of flare and ghosting, even under demanding lighting conditions.



## SP (Super Protection) Coating

SP (Super Protection) coating is a special coating on the external lens element of specific PENTAX lenses. It is based on a fluorine coating and prevents water-based or oily substances from adhering to the lens. SP coated lenses are more easily cleaned of finger marks, smears or other matter than may come in contact with the lens.



## IF (Internal Focusing)

Each lens is composed of several groups of lens elements. With an Internal Focusing design, only one of these groups is moved. Internal Focusing brings a number of advantages compared to a conventional focusing design where all the lens groups are moved; the lens works faster and the overall length of the lens remains unchanged so the center of balance remains constant. Additionally, the front lens element doesn't rotate, so filters do not have to be readjusted every time the focus point changes.



## SDM (Supersonic Direct-drive Motor)

SDM motors manage the actual focusing of an autofocus system. With the SDM Motor PENTAX has developed a technology that propels the focusing procedure with an ultrasonic motor. PENTAX SDM lenses drive the autofocus system significantly faster and operate more quietly than conventionally driven AF lenses.



## DC

Smooth autofocus operation using an AF driving motor (DC motor) installed in the lens barrel.



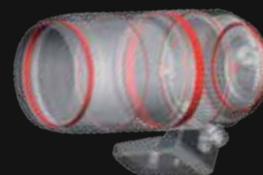
## Quick Shift Focus System

The PENTAX Quick Shift Focus System allows instant switching between Auto Focus and Manual Focus simply by turning the focusing ring on the lens. A clever clutch mechanism takes care of the rest.



## Water and Dust Protection

Humidity and dirt are the natural enemies of high performance electronics and precision optics. AW lenses provide maximum weather-resistant and dustproof performance preventing the intrusion of drizzle and dust into the lens barrel. The next category of "all weather" PENTAX lenses is designated as WR or weather-resistant. These affordable lenses utilize a simplified weather-resistant construction, making it more difficult for water to enter the lens and are designed to repel a light splash of water.



# Lenses - the fundamentals

## How to read lens information

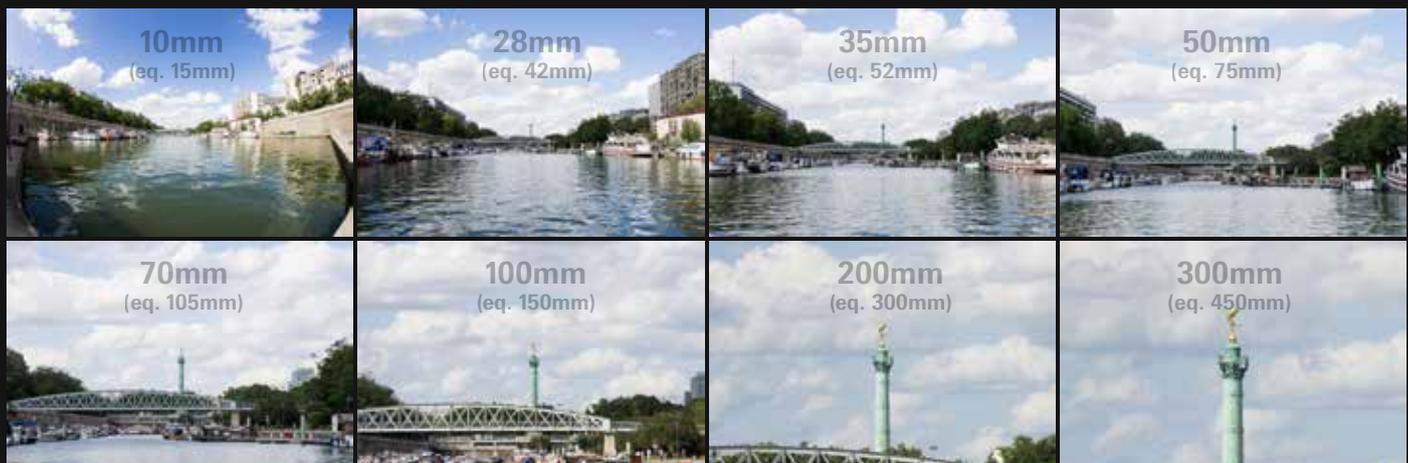
Lens series	Maximum focal length	Aperture at maximum focal length	
DA 18-135mm F3.5-5.6 ED AL (IF) DC WR			
Minimum focal length	Aperture at minimum focal length	Lens technology	

## Focal length

Focal length is the basic characteristic of a lens and determines how much magnification it provides. Focal length defines the area of the scene that can be viewed with a given sensor and is expressed in millimeters (mm).

Zoom lenses can have multiple focal lengths in one lens. They are versatile and can be used for different types of photography without having to change lenses.

Fixed focal length lenses have only one focal length. They are brighter because they generally have maximum apertures wider than zooms. This enables shooting in low light conditions or using high shutter speeds to freeze the action.



## Depth of Field

The diaphragm of the lens is similar to the iris of the human eye which allows the amount of light input into the lens to be varied by controlling its size.

The aperture not only has a role in controlling the amount of light entering the lens and reaching the sensor, but also has a large effect on the depth of field.

Separate from autofocus, depth of field defines the area of sharpness in front of and behind the point of focus.



*The wider the aperture (e.g. F1.4 or F2.8),*

- The more light will enter the lens,
- The shallower the depth of field :  
*the main subject stands out and the background is blurred*



*The smaller the aperture (e.g. F11 or F16)*

- The less light will enter the lens,
- The deeper the depth of field :  
*the foreground and the background will be in focus*

# Choosing a lens for a specific application

Wondering what lens to choose? Do you want to photograph portraits, flowers, sports or landscapes? Every subject will have its own peculiarities and each lens will act as a different tool, revealing the world in a totally unique way. Here are some tips to help when choosing a lens.



© Thibaud Epeche



## Landscapes, architecture, indoor or groups

Wide-angle or ultra-wide-angle lenses will create wider perspectives and allow more of the scene to be included, offering a more complete view of a landscape, a panoramic or buildings and architecture. Wide-angle lenses offer a creative perspective, as this type of lens will seem to accentuate the foreground and somewhat minimize the background. Attention to the phenomenon of perspective distortion is also important.

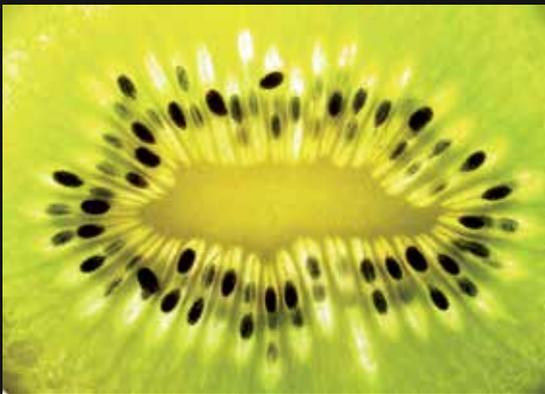


## Sports, show or wildlife photography

Bright long focal length lenses, telephoto and telephoto zoom lenses (100mm to 300mm), are wonderful for sports, theater, action and wildlife photography. While shooting at a distance from the subject, these lenses will give greater.



© Christoph Brunen



© Dmitri Men'chikov



## Macro photography

Macro lenses offer a unique creative perspective, as they allow you to come physically very close to a subject and still have the ability to capture small subjects and keep the detail and image perfectly sharp. Macro lenses are excellent for creative and stunning photographs of flowers, insects, water droplets, and still life. Focusing closer to subjects will create a larger perspective in the image—even to a life-size of 1:1. For instance the DA 35mm Macro allows focusing down to 14cm, while still preserving life-size detail.



## Portrait

Telephoto lenses, with focal lengths of 70 to 100mm are ideal for portrait photography. Telephoto lenses show very little distortion on the face and are able to highlight the subject from the background by choosing a wide aperture to give a shallow depth of field.



© Olga Babitch



© Laurence Bouly



### Photojournalism

If you are looking for a lens for storytelling and news, a normal lens will offer a focal length close to the vision of the human eye, about 35mm equivalent to 50mm in 35mm format.



### The versatile lens

If you are looking for a lens that may be suitable for many subjects, landscapes, and portraits, a zoom lens such as the DA 18-270mm or DA 18-135mm will allow for greater flexibility without having to change lenses. Capture any shot with a zoom ranging from wide-angle to telephoto. Despite a lower brightness than the specialized lenses, these are ideal for everyday use, and extremely versatile and convenient for traveling.



© Bruno Giordano



© Laurence Bouly



### Fast and quiet focusing

For ultimate performance, choose an ultrasonic lens with fast, precise and quiet focusing.



### Weather resistance

Protect against humidity and dust

Withstand the weather, and keep shooting in any condition with PENTAX WR (Weather Resistant) lenses. Everywhere you go, PENTAX's protective seals in the WR lenses will handle rain, sea spray, humid tropical climates, snow, sand and even dust.



© Laurence Bouly

Run free and discover your world. No matter what your creative intentions, PENTAX has a lens that will give the perspective to create the images you have imagined. Throughout this brochure you will find icons and tools to help you to choose the right lenses for your photography.

# The PENTAX lens line-up

Super wide-angle

Wide-angle

Standard

Medium telephoto

Medium

10mm  
(eq. 15mm)

28mm  
(eq. 42mm)

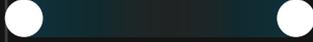
35mm  
(eq. 52mm)

50mm  
(eq. 75mm)

70mm  
(eq. 105mm)



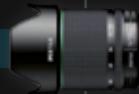
DA 10-17mm Fish-Eye f/3.5-4.5 ED (IF)



DA 12-24mm f/4 ED AL (IF)



DA 18-55mm f/3.5-5.6 AL WR



DA 18-135mm f/3.5-5.6 ED AL (IF) DC WR



DA\* 16-50mm f/2.8 ED AL (IF)



DA 17-70mm f/4 AL (IF) SDM



DA 15mm f/4 ED AL Limited



DA 21mm f/3.2 AL Limited



DA 35mm f/2.8 Macro Limited



DA 40mm f/2.8 Limited



DA 35mm f/2.4 AL



D-FA 50mm f/2.8



DA 40mm XS



DA 50mm f/1.8



DA\* 55mm f/1.4 SDM



## DA Series and DA WR/AW Series

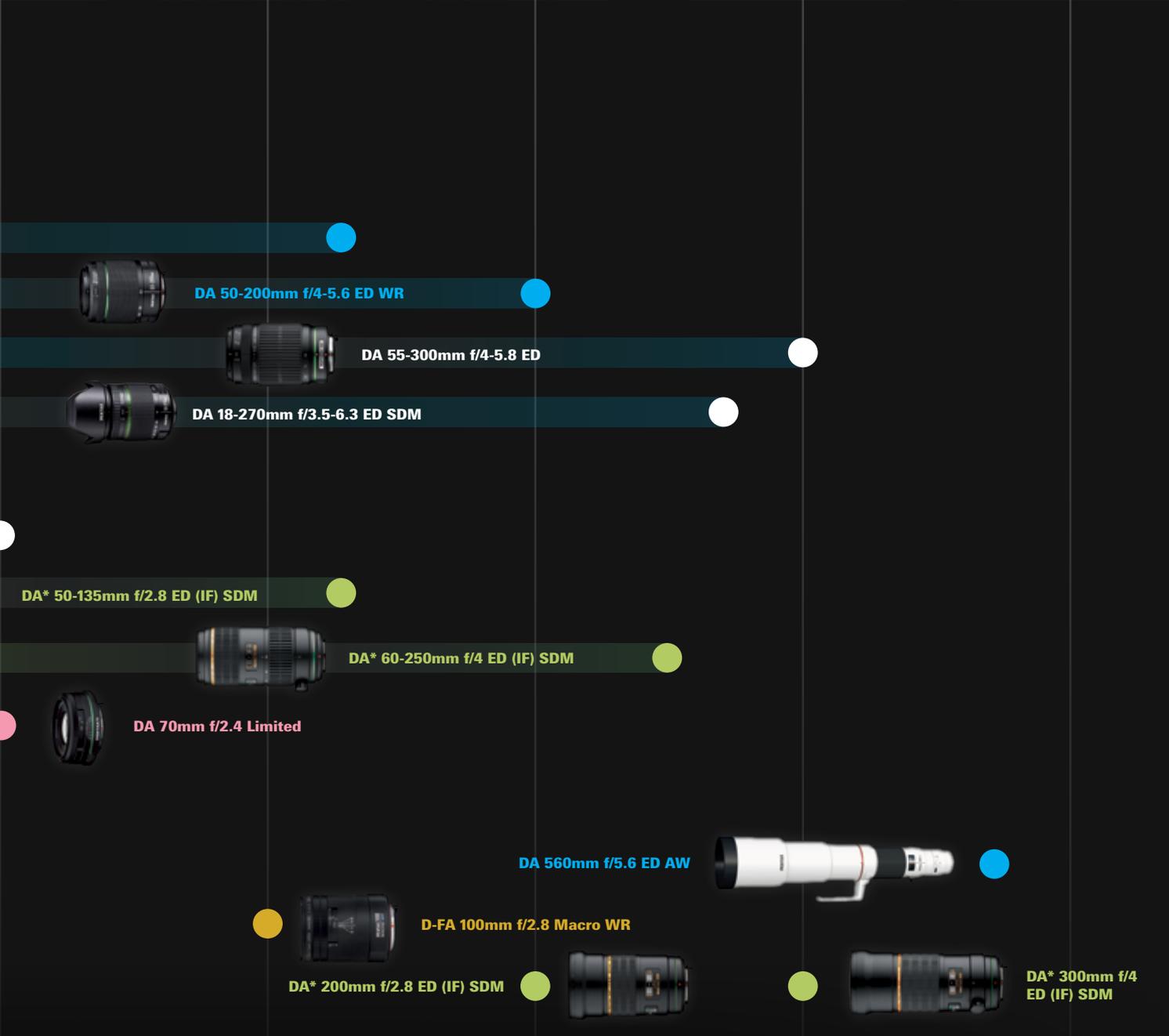
Consisting of standard-class lenses, this series provides superb image quality and outstanding operability with a compact, lightweight body. The WR (Weather resistant) and AW (All Weather) series models belong to this group.

## DA Limited Series

This series consists of fixed focal length lenses with a distinctive visual rendition and a unique perspective, which are based on the discerning observation of professional photographers. All models feature a precision-machined aluminum lens barrel.

telephoto Medium telephoto Telephoto Telephoto Super Telephoto

75mm (eq. 112.5mm) 100mm (eq. 150mm) 200mm (eq. 300mm) 300mm (eq. 450mm) 600mm (eq. 900mm)



**D FA Series**

This series features a large image circle that covers the 35mm film format, and includes two macro lenses capable of high-resolution, life-size close-up photography.

**DA\* SDM Series**

Consisting of super-high-performance, large aperture models, this series features a smooth, quiet AF mechanism driven by a supersonic drive motor (SDM) and excellent weather-resistant, dustproof performance.

# WIDE-ANGLE LENSES

Wide-angle zoom lenses allow wide, creative framing of close-up subjects as well as a full view for panoramic scenes and landscapes. You can also choose to use these lenses to enhance perspective and depth of field.

## smc DA 10-17mm Fish-Eye F3.5-4.5 ED (IF)



- Equivalent to 15-26mm in 35mm film format
- Lightweight, rugged Fish-eye zoom lens with 180-degree maximum angle of view for amazing panoramic shots
- Fast manual focusing in AF mode with Quick Shift focus system
- Extra-low dispersion ED lens elements for brilliant sharpness and saturated colors
- Super Protect coating of the front lens element for effective protection against dirt and fingerprints

This lightweight, rugged Fish-eye zoom lens is perfect for the widest panoramic scenes, as well as for the artistic lines and curves that only a Fish-eye can deliver. Fish-eye lenses open unusual perspectives as they do not exhibit barrel distortion and produce circular images instead of rectangular images. With extraordinary optical characteristics, this lens substantially extends creative possibilities as it zooms through a picture angle of 180 to 100 degrees. Also, with its special optical design, create striking macro photographs from a distance of only 2.5cm. Employing ED (Extra-low Dispersion) glass, this lens effectively overcomes chromatic aberration throughout the image – an effect particularly noticeable with enlargements. What's more, the front lens element uses the unique PENTAX SP protective coating to repel dirt and water.



© Thibaud Epeche

Ideal for :



- Construction : 10 elements in 8 groups • Minimum focusing distance : 14cm • Maximum magnification: 0.39X • Angle of view (°) : 180 - 100
- Filter size : not applicable • Dimensions (d x l) : 2.7x2.8 inches • Weight : 11.3 oz.



© Andrei Tourtsevitch

### smc DA 12-24mm F4 ED AL (IF)



- Equivalent to 18.5-37mm in 35mm film format
- 2X zoom within a wide-angle lens
- Fast manual focusing in AF mode with Quick Shift focus system
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Extra-low dispersion ED lens elements for brilliant sharpness and saturated colors

The PENTAX ultra wide-angle DA 12-24mm zoom epitomizes versatility, offering a total range of wide-angle photography. It gives an angle range between 99 and 61 degrees and near macro capability for more true-to-life image reproduction. It is the ideal choice for wide-angle photographers who want the maximum angle of view possible in a non fish-eye lens. Aspherical and extra-low dispersion (ED lenses) lens elements yield crystal-clear photos with marvelous color and depth.



© Thibaud Epeche

Ideal for :



- Construction : 13 elements in 11 groups • Minimum focusing distance : 30cm • Maximum magnification: 0.12X • Angle of view (°) : 99 - 61 • Filter size : 77mm
- Dimensions (d x l) : 3.3 x 3.4 inches • Weight : 15.2 oz.

# STANDARD ZOOM LENSES

Standard zoom lenses enable photography of many scenes and subjects, from portrait to landscape. Compact and versatile, they are the ideal choice for everyday shooting.

## smc DA\* 16-50mm F2.8 ED AL (IF) SDM



- Equivalent to 24.5-76.5mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift focus system

The DA "Star" series lenses open a new chapter of PENTAX lens history. Fundamental characteristics of the series include a super fast "Supersonic Motor", utilizing the latest generation of ultrasonic motor technology, and housings completely sealed against water and dust. The supersonic technology is specifically designed for cameras introduced since the PENTAX K10D. Also, these new outstanding lenses are compatible with older camera models as they are equipped with the conventional autofocus drive system. The DA\* 16 – 50mm is the ultimate standard zoom. With a continuous aperture of F2.8, it's more than capable of handling poor lighting conditions. The "Quick Shift" focus system provides for decisive manual focus capabilities – allowing for instantaneous manual focusing without switching from the autofocus mode. And rounding off the new, intelligent design of the "Star" series lenses is the PENTAX proprietary SP coating, which effectively protects the front lens element against dirt and pollution.



© Thibaud Epeche

Ideal for :



- Construction : 15 elements in 12 groups • Minimum focusing distance : 30cm • Maximum magnification: 0.21X • Angle of view (°) : 83 - 31.5 • Filter size : 77mm
- Dimensions (d x l) : 3.3 x 3.9 inches • Weight : 19.9 oz.

## smc DA 17-70mm F4 AL (IF) SDM



- Equivalent to 26-107mm in 35mm film format
- Ultrasonic lens for an extremely fast and silent focus
- Constant aperture at F4
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Shoot extreme close-ups, mid-distance action shots, and portraits without the bulk of longer lenses. This jack-of-all-trades for the on-the-go photographer provides the highest level of optical quality. It is ideal for the photographer who wants a quality standard zoom lens with extra telephoto performance and a silent SDM autofocus motor. Thanks to its extremely high quality optics, brilliant images are assured, whether you're shooting wide-angle or moderate telephoto shots. The lens is designed with 17 lens elements in 12 groups, including an aspherical element to reduce aberrations. Additionally, there are useful features such as internal focusing and the "Quick Shift" focus system. The autofocus smc DA 17–70mm is exclusively equipped with ultrasonic auto focus drive found in the new PENTAX DSLRs.



© Yann Boudin

Ideal for :



- Construction : 17 elements in 12 groups • Minimum focusing distance : 28cm • Maximum magnification: 0.31X • Angle of view (°) : 79 - 23 • Filter size : 67mm
- Dimensions (d x l) : 3.0 x 3.7 inches • Weight : 17.1 oz.

## smc DA 18-55mm F3.5-5.6 AL WR



- Equivalent to 28-85mm in 35mm film format
- Weather resistant lens is protected against humidity, dust and cold
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift Focus System
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

This lens blends versatility with affordability, giving the casual photographer a broader canvas without having to carry a multitude of lenses. Plus, it's weather-resistant to handle damp, inclement conditions. Great wide-angle capability with a standard 3X zoom range. It covers a focal range from 28 to 85mm (eq. in 35mm), and is ideal for many shooting situations. At a light 220g, this lens is easy for travel and day-to-day use. The configuration of 11 elements in 8 groups includes an aspherical element for better contrast and sharpness. Also incorporating many advanced technologies such as specific curvature of the lens element, and an optimized lens formula, this new weather resistant version ensures sharp images and contrast with particularly fine details.



© Tempete2pixel

• Construction : 11 elements in 8 groups • Minimum focusing distance : 25cm • Maximum magnification: 0.34X • Angle of view (°) : 76 - 29 • Filter size : 52mm  
 • Dimensions (d x l) : 2.7 x 2.7 inches • Weight : 8.1 oz.

Ideal for :



## smc DA 18-135mm F3.5-5.6 ED AL (IF) DC WR



- Equivalent to 28-207mm in 35mm film format , with an extended 7.5X zoom range
- Weather resistant lens is protected against humidity, dust and cold
- Direct Current\* motor for extra smooth autofocus operation
- Round shaped diaphragm to produce beautiful bokeh
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

The smc PENTAX DA 18-135mm F3.5-5.6 ED AL [IF] DC WR lens is designed exclusively for use with PENTAX digital SLR cameras and combines quality and versatility. This interchangeable zoom lens features a simplified weather-resistant construction and extra-smooth autofocus operation using a built-in motor. In addition, with a magnification ratio of 7.5X and a zoom range equivalent to 28-207mm in 35mm format, it offers a wide choice of compositions and is suitable for many photographic situations. For shooting off the beaten track and in the outdoors, it is equipped with 7 protection seals to protect it from rain, dust and harsh weather. With a built-in AF motor, the focusing speed is faster and quieter than when the AF motor is in the SLR body. Also equipped with a round diaphragm, it produces natural, beautiful bokeh (out-of-focus effect).



© Laurence Bouly

• Construction : 13 elements in 11 groups • Minimum focusing distance : 40cm • Maximum magnification: 0.24X • Angle of view (°) : 11.9 -76 • Filter size : 62mm  
 • Dimensions (d x l) : 2.9 x 3.0 inches • Weight : 14.3 oz.

Ideal for :



A large, full moon is positioned in the upper right quadrant of the frame, set against a sky that transitions from a deep purple at the top to a bright orange near the horizon. In the foreground, a large, dark, craggy rock formation dominates the left side, its surface catching some of the low light. The overall mood is serene and dramatic.

# TELEPHOTO LENSES

With telephoto lenses, capture details and stunning portraits at a distance from the subject—this lens type is especially useful for wildlife and sports photography.

## smc DA 18-270mm F3.5-6.3 ED SDM



© Laurence Bouly

- Equivalent to 28-414mm in 35mm film format
- Minimal focal distance of 1.6 feet throughout the entire zoom range
- Ultrasonic lens for an extremely fast and silent focus
- Round shaped diaphragm to produce beautiful bokeh
- Extra-low dispersion ED lens elements for brilliant sharpness and saturated colors

This high-magnification zoom lens offers 15X zoom ratio to cover focal lengths from wide angle to telephoto, making it extremely versatile and handy. It allows the user to effortlessly capture a wide variety of subjects, ranging from landscapes and snapshots to sports events, without the need of lens changes. Thanks to the PENTAX-original SDM autofocus system driven by a built-in supersonic motor, this zoom lens offers exceptionally smooth and quiet autofocus operation. Also equipped with a round diaphragm, it produces natural, beautiful bokeh (out-of-focus effect). Incorporating two extra-low dispersion (ED) elements in its optics, it delivers bright, high-resolution images even at the edges, while effectively minimizing chromatic aberration.

Ideal for :



- Construction : 16 elements in 13 groups
- Minimum focusing distance : 49cm
- Maximum magnification: 0.26X
- Angle of view (°) : 76 -6
- Filter size : 62mm
- Dimensions (d x l) : 3.0 x 3.5 inches
- Weight : 16 oz.



## smc DA\* 50-135mm F2.8 ED (IF) SDM



- Equivalent to 77-207mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift Focus System

For standard to medium long-range applications with the utmost level of sharpness, contrast and overall picture clarity, look no further. This fast lens, designed exclusively for PENTAX digital SLR cameras, is an outstanding combination of quality optical performance and speed. Its state-of-the-art construction provides for a fast aperture through the entire focal length. An additional plus: the inner focusing design maintains the focusing point through the full zoom range. The DA\* 50-135 also features the PENTAX SP special coating on the front lens element to protect it effectively against the elements.



© Holistica

- Construction : 18 elements in 14 groups • Minimum focusing distance : 1m • Maximum magnification: 0.17X • Angle of view (°) : 31.5 -11.9 • Filter size : 67mm
- Dimensions (d x l) : 3.0 x 5.4 inches • Weight : 24.2 oz.

Ideal for :



## smc DA 50-200mm F4-5.6 ED WR



- Equivalent to 77-306mm in 35mm film format
- Weather resistant lens is protected against humidity
- Extra-low dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift Focus System
- Super Protect coating of the front lens element for effective protection against dirt and finger marks.

With a medium range 4X telephoto zoom in an affordable, durable package, this lens captures medium- to long-distance objects and everything in between. And it's weather-resistant, so you can keep exploring even in damp, inclement conditions. Now that's impressive! An 11-element construction provides richly saturated images packed with detail and makes this lens a favored choice of landscape photographers where homing in on distant detail is important. The design includes one extremely low-dispersion ED glass element to control chromatic aberration. This lens is equipped with protective seals and is resistant to humidity. It is the perfect complement to the DA 18-55 WR for complete weather resistant equipment.



© Wolfgang Baus

- Construction : 11 elements in 10 groups • Minimum focusing distance : 1.1m • Maximum magnification: 0.24X • Angle of view (°) : 31.5 -8.1 • Filter size : 49mm
- Dimensions (d x l) : 2.7 x 3.1 inches • Weight : 10.1 oz.

Ideal for :



## smc DA 55-300mm F4-5.8 ED



- Equivalent to 84.5-460mm in 35mm film format
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and fingerprints

As far as your eye can see. From the standard to the long shot, the smc PENTAX DA 55-300mm F4-5.8 ED offers true versatility in a compact design for a variety of photographic situations. It is an ideal lens for photographers wanting a reasonably priced, high quality, telephoto zoom lens with extra zoom ability. It is also the ideal companion lens for camera kits that already contain a standard range zoom lens. With an 85 to 450mm focal length (in 35mm film format) the smc DA 55-300mm offers an extremely wide zoom range, allowing you to capture nearby scenes just as easily and as perfectly as long distance shots. The optical design was especially developed to meet the requirements of high-resolution digital SLR cameras. A high performance ED lens element is incorporated to keep color aberrations to a minimum and the special PENTAX SP coating on the front lens element provides effective protection against dirt and finger-marks. Additionally, the lens has a wide focusing ring for those who prefer to focus manually.



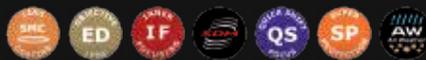
© Laurence Bouly

Ideal for :



- Construction : 12 elements in 8 groups • Minimum focusing distance : 1.4m • Maximum magnification: 0.28X • Angle of view (°) : 29 -5.4 • Filter size : 58mm
- Dimensions (d x l) : 2.8 x 4.4 inches • Weight : 15.5 oz.

## smc DA\* 60-250mm F4 ED (IF) SDM



- Equivalent to 92-383mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift focus system
- Tripod adapter

With constant aperture F4, fast and quiet ultrasonic focusing, protective seals, this powerful telephoto zoom lens with a magnification ratio of 4.2X will seduce many photographers fond of portraits, sport or wildlife. This versatile telephoto zoom lens is for photographers who demand flexibility and the highest quality from their glass. Equipped with ED glass, it will guarantee better color rendering. Its internal focusing and its protection against humidity and dust make it a reliable lens for outdoor use. This lens comes with a tripod collar.

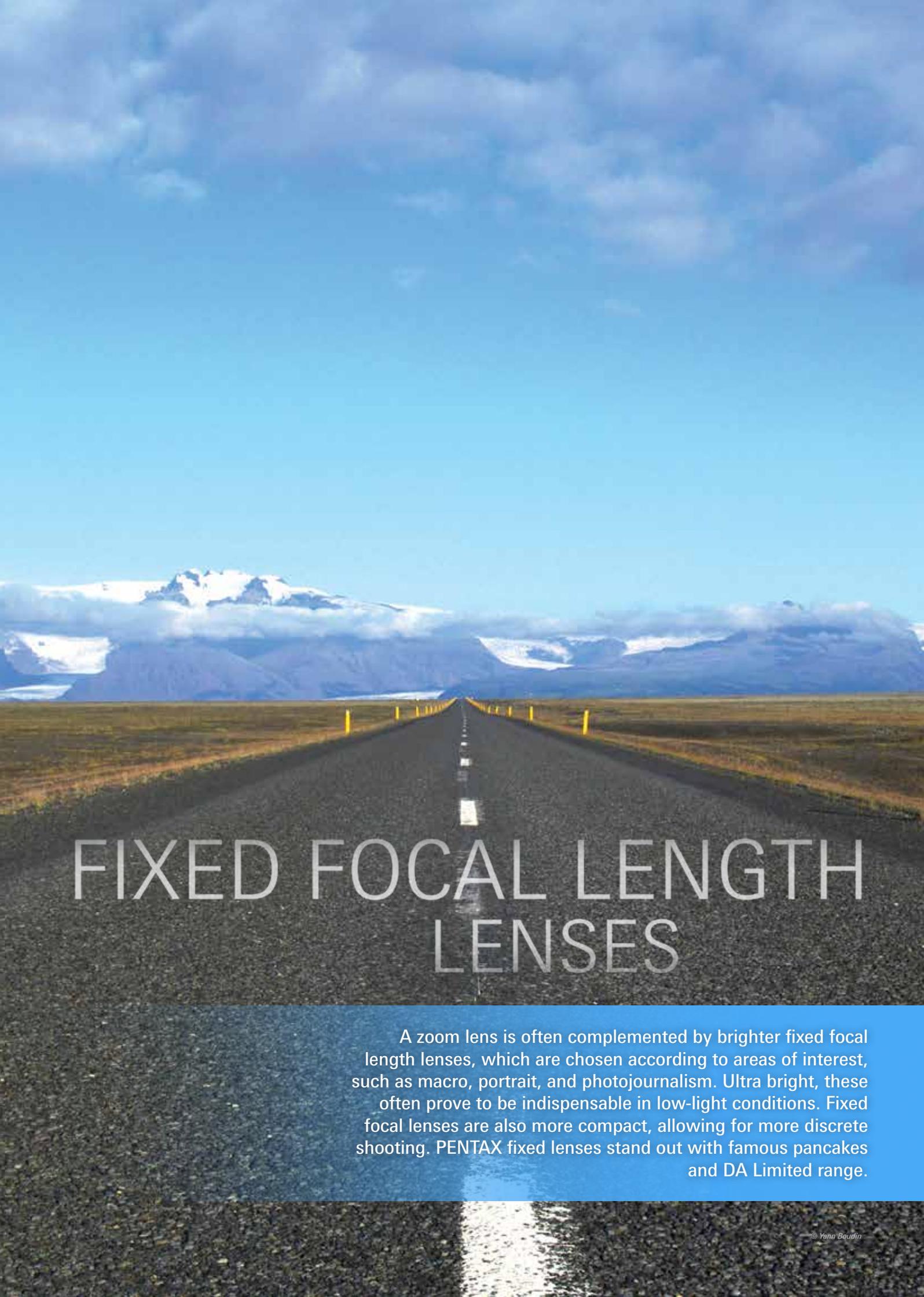


© Wolfgang Baus

Ideal for :



- Construction : 15 elements in 13 groups • Minimum focusing distance : 1.1m • Maximum magnification: 0.15X • Angle of view (°) : 26.5 -6.5 • Filter size : 67mm
- Dimensions (d x l) : 3.2 x 6.6 inches • Weight : 36.7 oz.



# FIXED FOCAL LENGTH LENSES

A zoom lens is often complemented by brighter fixed focal length lenses, which are chosen according to areas of interest, such as macro, portrait, and photojournalism. Ultra bright, these often prove to be indispensable in low-light conditions. Fixed focal lenses are also more compact, allowing for more discrete shooting. PENTAX fixed lenses stand out with famous pancakes and DA Limited range.

## smc DA 15mm F4 ED AL Limited



- Equivalent to 23mm in 35mm film format
- High quality finish and excellent optical performance of the DA Limited line-up
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors

- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks
- Compact and lightweight

Compact and lightweight, this wide-angle lens is perfect for prime shooters who like to travel light but still demand the highest-quality images. Like all PENTAX Limited lenses, it features the unsurpassed durability of high-grade aluminum construction. This lens is ideal for wide-angle applications, including group shots, tight interiors, and sweeping landscapes. This ultra wide-angle lens has a focal length equivalent to 23mm in 35mm format, which provides unique images with larger perspective and depth of field. The lens includes a hybrid aspherical element (AL) optical element and an ultra-low dispersion element to ensure high image quality. In addition, the extremely compact and lightweight design allows the use of 49mm filters and even circular polarizing filters for landscape photos.



© Andrei Tourtsevitch

Ideal for :



- Construction : 8 elements in 6 groups • Minimum focusing distance : 28cm • Maximum magnification: 0.15X • Angle of view (°) : 86 • Filter size : 49mm
- Dimensions (d x l) : 2.5 x 1.58 inches • Weight : 7.47 oz.

## smc DA 21mm F3.2 AL Limited



- Equivalent to 32mm in 35mm film format
- Minimum focusing distance of 7.9 inches
- High quality finish and excellent optical performance of the DA Limited line-up
- AL Aspherical element to reduce aberrations and provide

- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks
- Ultra-thin, super-lightweight, and compact design

With precision, high-performance optics, this robust lens measures only one inch in length and weighs a mere 4.9 ounces. It is the ideal choice for carry-everywhere, instantaneous wide angle or snapshot photography. The versatile angle of view produces natural images with a moderate perspective or an expanded depth of field, making it ideal for many different types of subjects and occasions such as, snapshots, landscapes, architecture and travel photography. In order to achieve excellent image quality, the optical design is based around an aspherical lens element. Additionally, so that outstanding image characteristics are kept at close distances -starting from 0.2m- a floating lens element is incorporated.



© Thibaud Epeche

Ideal for :



- Construction : 8 elements in 5 groups • Minimum focusing distance : 20cm • Maximum magnification: 0.17X • Angle of view (°) : 68 • Filter size : 49mm
- Dimensions (d x l) : 2.5 x 1.0 inches • Weight : 4.9 oz.

## smc DA 35mm F2.4 AL



- Equivalent to 53.5mm in 35mm format
- Fast F2.4 maximum aperture for handheld photography in low lighting and depth of field flexibility
- Highly lightweight design for improved comfort and portability
- AL Aspherical element to reduce aberrations and provide crystal clear images
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Standard, but versatile and bright, the smc PENTAX DA 35mm F2.4 AL may be used to capture a wide range of subjects for high-resolution images with edge-to-edge sharpness. This lens, with an angle of view similar to the human eye at 53.5mm in the 35 mm format, is a perfect choice for digital SLR beginners to familiarize themselves with the basics of using interchangeable lenses. This lens is perfect for everyday photos and discrete shots thanks to its compact size. This lens also features the PENTAX Ghostless treatment to minimize «flare» defects and «ghost» images to ensure successful pictures in all condition.



© Yann Boudin

Ideal for :



- Construction : 6 elements in 5 groups • Minimum focusing distance : 30cm • Maximum magnification: 0.17X • Angle of view (°) : 44 • Filter size : 49mm
- Dimensions (d x l) : 2.5 x 1.8 inches • Weight : 7.6 oz.

## smc DA 40mm F2.8 Limited



- Equivalent to 61mm in 35mm format
- High quality finish and excellent optical performance of the DA Limited line-up
- Fast manual focusing in AF mode with Quick Shift focus system
- Compact and lightweight - 'Pancake lens' weighs just 3.17 ounces

Another first-class lens from the legendary PENTAX "Limited Edition" series. This unique pancake-style standard lens with a 40mm focal length (60mm in 35mm film format) is offered with exclusive optical characteristics and very high luminous intensity. Measuring just over a half inch in length and weighing just 3.17 ounces, find exceptional sharpness and image quality in this incredibly compact lens. This lens is ideal for even the most discerning photographer who demands top performance in an ultra-compact package.



© Andrei Nekrassov

Ideal for :



- Construction : 5 elements in 4 groups • Minimum focusing distance : 40cm • Maximum magnification: 0.13X • Angle of view (°) : 39 • Filter size : 49mm
- Dimensions (d x l) : 2.5 x 0.6 inches • Weight : 3.17 oz.

## smc DA 40mm XS F2.8



- Fixed focal length equivalent to 61mm in 35mm film format
- Designed by Marc Newson
- Maximum F2.8 aperture is ideal for existing light photography and creative depth of field applications

- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks
- Extremely compact and lightweight - 52g

This fixed focal length lens designed by Marc Newson is one of the finest lenses in the world. It offers a focal length equivalent to 61mm in 35mm format. Its small size makes it easy to carry. Its large F2.8 aperture ensures sharp images in many shooting situations. The front lens of this lens benefits from SP (Super Protect) fluorine-based coating against water, dust and fingers prints.



© Olga Babitch

Ideal for :



- Construction : 5 elements in 4 groups • Minimum focusing distance : 40cm • Maximum magnification: 0.13X • Angle of view (°) : 39 • Filter size : 27mm
- Dimensions (d x l) : 2.5 x 0.36 inches • Weight : 1.8 oz.

## smc DA 50mm F1.8



- Equivalent to 76.5mm in 35mm film format
- Wide aperture F1.8
- Round shaped diaphragm to produce beautiful bokeh at large apertures

- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

This fast, medium-telephoto prime lens is ideal for portraits, still life or low light photography. Its large aperture F1.8 combined with its round diaphragm produces natural, beautiful bokeh (out-of-focus effect). It also provides access to higher shutter speeds in low light situations to avoid blurred pictures. The front lens has been specially treated with SP (SuperProtect) coating against water, dust and fingerprints. Compact and lightweight, this lens will assist you in all your outings.



© Laurence Bouly

Ideal for :



- Construction : 6 elements in 5 groups • Minimum focusing distance : 45cm • Maximum magnification: 0.15X • Angle of view (°) : 31.5 • Filter size : 52mm
- Dimensions (d x l) : 2.5 x 1.5 inches • Weight : 4.3 oz.

## smc DA\* 55mm F1.4 SDM



- Equivalent to 84mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Fast manual focusing in AF mode with Quick Shift Focus System

This medium telephoto lens is ideal for portraits and versatile for all shooting conditions. Its large aperture F1.8 combined with its round diaphragm produce natural, beautiful bokeh (out-of-focus effect). In addition, it has the new coating (Aero Bright Coating) allowing greater light transmittance and better filtering of flare. Its ultrasonic technology (Super Directdrive Motor) ensures speed and quiet operation focus. Protection against humidity and dust makes it a reliable lens for outdoor use.



© Olga Babitch

- Construction : 9 elements in 8 groups • Minimum focusing distance : 45cm • Maximum magnification: 0.17X • Angle of view (°) : 28.6 • Filter size : 58mm
- Dimensions (d x l) : 2.8 x 2.6 inches • Weight : 13.2 oz.

Ideal for :



## smc DA 70mm F2.4 Limited



- Equivalent to 107mm in 35mm film format
- High quality finish and excellent optical performance of the DA Limited line-up
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Highly efficient optical glass is the key to the design of this short telephoto lens with an overall length of only 26mm and weighing a mere 130g. This lens produces unusually sharp and high-contrast results. With a focal length of 70mm (105mm in 35mm film format) it is a multi-talented masterpiece that gets the most out of portrait or grandiose landscape photographs. It is also equipped with "Quick Shift" Focus System for fast manual focusing in the AF mode and the front lens element is protected with the original PENTAX SP technology.



© Thibaud Epeche

- Construction : 6 elements in 5 groups • Minimum focusing distance : 70cm • Maximum magnification: 0.12X • Angle of view (°) : 23 • Filter size : 49mm
- Dimensions (d x l) : 2.5 x 1.0 inches • Weight : 4.6 oz.

Ideal for :



## smc DA\* 200mm F2.8 ED (IF) SDM



- Equivalent to 307mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift focus system

This telephoto lens incorporates top-level technology to match the highest photographic requirements. In terms of absolute resolving power the new 200mm lens from the PENTAX DA\* series leaves nothing to be desired. The fast aperture design delivers outstanding results under the most unfavorable lighting conditions. High-quality ED lens elements reduce color aberrations to practically imperceptible levels and raise the recording quality to an absolutely brilliant level. As well as its optical benefits the smc DA\* 200mm excels with handling ease: its ultrasonic focus operates extremely fast and silently, the inner focusing system effectively maintains the critical focal point and the special PENTAX SP coating of the front lens element efficiently prevents the adherence of dirt. Additionally, the lens body is completely sealed against spray and dust.



© Arsen Alaberdov

Ideal for :



- Construction : 9 elements in 6 groups • Minimum focusing distance : 1.2m • Maximum magnification: 0.20X • Angle of view (°) : 8.1 • Filter size : 77mm
- Dimensions (d x l) : 3.3 x 5.3 inches • Weight : 29.1 oz.

## smc DA\* 300mm F4 ED (IF) SDM



- Equivalent to 460mm in 35mm film format
- Exceptional image quality
- Ultrasonic lens for an extremely fast and silent focus
- Weather resistant lens is protected against humidity and dust
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Fast manual focusing in AF mode with Quick Shift focus system
- Tripod adapter

Like the 200mm lens, the smc DA\* 300mm also offers first-class performance for demanding professional requirements. Specifically designed for highly efficient modern DSLR systems, it offers brilliant solutions for longer telephoto focal length demands, being equivalent to a 460mm lens in 35mm film format. Special ED lens elements reliably reduce color aberrations to a minimum. The smc DA\* 300mm offers the same handling benefits as its 200mm sibling: the ultrasonic focus is extremely fast and silent, the inner focusing system effectively maintains the critical focal point and the special PENTAX SP coating of the front lens element efficiently prevents dirt from adhering. The lens body is also completely sealed against spray and dust, making this a perfect lens for sports and wildlife photography. Additionally, it is also equipped with a tripod mount.



© Tempete2pixel

Ideal for :



- Construction : 8 elements in 6 groups • Minimum focusing distance : 1.4m • Maximum magnification: 0.24X • Angle of view (°) : 5.4 • Filter size : 77mm
- Dimensions (d x l) : 3.3 x 7.2 inches • Weight : 37.7 oz.

## HD DA 560mm F5.6 ED AW



© Thibaud Epeche

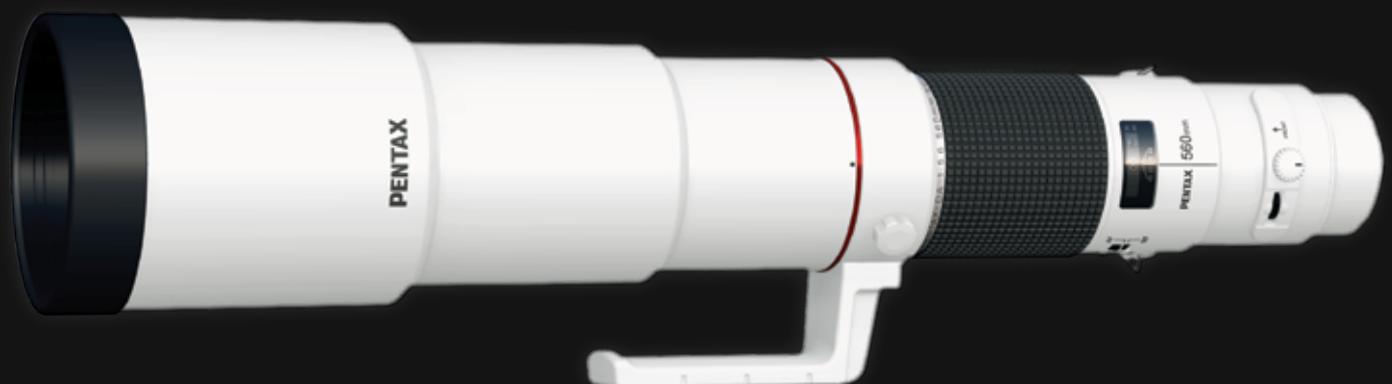
- Equivalent to 859mm in 35mm film format
- Weather resistant lens is protected against humidity and dust
- Direct Current\* motor for extra smooth autofocus operation
- Extra low-dispersion ED lens elements for brilliant sharpness and saturated colors
- Round shaped diaphragm to produce beautiful bokeh
- High Definition Coating against flare and ghost images
- Fast manual focusing in AF mode with Quick Shift focus system

Thanks to the incorporation of PENTAX-original HD coating - a newly developed high-grade multi-layer lens coating against flare and ghost images - and telescope-type optics, this super-telephoto lens delivers clear, well-defined images of distant subjects. With its 2 extra-low dispersion optical elements, it delivers bright, high resolution images even at the edges, while effectively minimizing chromatic aberration. It also benefits from smooth autofocus operation using an AF drive motor (DC motor) installed in the lens barrel. This lens features a weather-resistant construction with 29 special seals to prevent the intrusion of dust and water and a built-in removable filter holder in the barrel to obtain the desired polarizing effect.

Ideal for :



- Construction : 6 elements in 5 groups • Minimum focusing distance : 5.6m • Maximum magnification: 0.10X • Angle of view (°) : 2.9
- Filter size : 112mm • Dimensions (d x l) : 5.1 x 20.5 inches • Weight : 107.2 oz.





# MACRO LENSES

Explore Life Size Detail!

A macro lens is suitable for more than shooting close-up subjects.

It is the subject to image size ratio that gives an image the Macro stamp.

## smc DA 35mm F2.8 Macro Limited



- Equivalent to 53.5mm in 35mm film format
- Magnification to 1:1
- High quality finish and excellent optical performance of the DA Limited line-up
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Ideal for :



Bringing even more pleasure to photography, the new smc DA 35mm is the first macro lens in the acclaimed "Limited" range. As with all lenses in this range, it is characterized by its highly compact design — however, this lens is truly defined by its macro capabilities. Create life size details from up close or at a normal distance with a 1:1 ration magnification. Of equal importance, enjoy flawless reproduction quality, attained in part by an innovative new lens coating. This fast lens incorporates a dirt resistant front lens element with the PENTAX exclusive SP coating, and a Quick Shift focus system for instantaneous focus corrections. With a 53.5mm focal length equivalent in 35mm film format, the smc DA 35mm is, of course, useful beyond its macro tasks – it is eminently well suited as a standard lens of outstanding high quality.



© Thibaud Epeche

- Construction : 9 elements in 8 groups
- Minimum focusing distance : 14cm
- Maximum magnification: 1X
- Angle of view (°) : 44
- Filter size : 49mm
- Dimensions (d x l) : 2.5 x 1.8 inches
- Weight : 7.6 oz.

## smc D FA 50mm F2.8 Macro



- Equivalent to 76.5mm in 35mm film format
- Magnification to 1:1
- Versatile compact lens ideal for both travel and everyday use
- Compatible with digital and 35mm film format SLR
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Ideal for :



This handy lens can be used as a macro lens or a standard lens and is remarkably lightweight and compact, making it the perfect travel companion to your PENTAX DSLR. Relative to conventional macro systems, the advanced design of the smc D FA 50mm attains a dramatic reduction in weight and a substantially more compact body, all this without compromising its impressive optical characteristics of 1:1 magnification, for true-to-life detail. A highly refined level of sharpness is incorporated throughout the entire focusing range, and the "Floating System" technology ensures your images are free of distortion – particularly at close range where lenses are more susceptible. The particular strengths of this lens unfold where the distance-to-subject is very small. Flower and plant photography, and indoor photography are among the domains of the D FA 50mm.



© Tempete2pixel

- Construction : 8 elements in 7 groups
- Minimum focusing distance : 19cm
- Maximum magnification: 1X
- Angle of view (°) : 47
- Filter size : 49mm
- Dimensions (d x l) : 2.7 x 2.4 inches
- Weight : 9.3 oz.

## smc D FA 100mm F2.8 Macro WR



- Equivalent to 153mm in 35mm format
- Magnification to 1:1
- Compatible with digital and 35mm film format SLR
- Weather resistant lens is protected against humidity, dust and cold
- Fast manual focusing in AF mode with Quick Shift focus system
- Super Protect coating of the front lens element for effective protection against dirt and finger marks

Ideal for :



This telephoto lens with ultra-close focusing capabilities is a multi-talented player, delivering clear, high-contrast images from both telephoto and macro perspectives. It is ideal for the close-up photographer looking for full-size subject magnification and outstanding depth of field control for the smallest of subjects. This lens has the same outstanding characteristics as its 50mm sister model, and has managed to minimize the weight and size when compared to other macro lenses. This lens also produces a 1:1 magnification ratio and features the unique PENTAX FREE technology, ensuring exceptional focusing distance to infinity by effectively reducing annoying aberrations at any focusing distance. With 150mm focal length in the 35mm format, the photographer enjoys the comfort and safety of a greater working distance to the subject, making it ideal for photographing insects, for example. The D FA 100mm has, like its sister model, a switch that locks the focus setting, making it impossible to inadvertently change the focus while concentrating on getting the perfect shot. This lens is equipped with protective seals and is resistant to humidity.



© Thibaud Epeche

- Construction : 9 elements in 8 groups
- Minimum focusing distance : 30cm
- Maximum magnification: 1X
- Angle of view (°) : 16
- Filter size : 49mm
- Dimensions (d x l) : 2.6 x 3.2 inches
- Weight : 12 oz.

# Lenses comparison chart

	Fixed focal length								Zoom			
	smc DA	smc DA	smc DA	smc DA	smc DA	smc DA	smc DA*	smc DA	smc DA	smc DA	smc DA*	smc DA
	15mm F4 ED AL Limited	21mm F3.2 AL Limited	35mm F2.4 AL	40mm F2.8 Limited	40mm F2.8 XS	50mm F1.8	55mm F1.4 SDM	70mm F2.4 Limited	10-17mm Fish-Eye F3.5-4.5 ED (IF)	12-24mm F4 ED AL (IF)	16-50mm F2.8 ED AL (IF) SDM	17-70mm F4 AL (IF) SDM
Picture												
Lens construction												
Icons												
Equivalent 35mm format	20mm	32mm	53.5mm	61mm	61mm	76.5mm	84mm	107mm	15-26 mm	18-36 mm	24.5-76.5 mm	26-107 mm
Angle of view (degrees)	86°	68°	44°	39°	39°	31.5°	28.6°	23°	180-100°	99-61°	83-31.5°	79-23°
Lens construction (groups / elements)	8/6	5/8	5/6	4/5	4/5	5/6	8/9	5/6	8/10	11/13	12/15	12/17
Maximum aperture	F4	F3.2	F2.4	F2.8	F2.8	F1.8	F1.4	F2.4	F3.5-4.5	F4	F2.8	F4
Minimum aperture	F22	F22	F22	F22	F22	F22	F22	F22	F22-32	F22	F22	F22
Minimum focusing distance	0.18m	0.20m	0.30m	0.40m	0.40m	0.45m	0.45m	0.70m	0.14m	0.30m	0.30m	0.28m
Filter diameter	49mm	49mm	49mm	49mm	27mm	52mm	58mm	49mm	-	77mm	77mm	67mm
Maximum magnification	0.15X	0.17X	0.17X	0.13X	0.13X	0.15X	0.17X	0.12X	0.39X	0.12X	0.21X	0.31X
Diameter and maximum length	63 x 39.5 mm	25 x 63 mm	63 x 45 mm	63 x 15 mm	63 x 9.2 mm	63 x 38.5 mm	70.5 x 66 mm	63 x 26 mm	68 x 71.5 mm	84 x 88 mm	84 x 98 mm	75 x 93.5 mm
Weight	212 g	140 g	124 g	90 g	52 g	122 g	375 g	130 g	320 g	430 g	565 g	485 g
Lens hood	Built-in	included MH-RBA43	included PH-SA49 or RH-RC49	included MH-RC49	-	RH-RA52	included PH-RBH58	included MH-RD49	-	included PH-RBI77	included PH-RBJ77	included PH-RBM67
Case	included DA70	included DA21	S70-70	included DA21	-	S70-70	included S90-100	included DA70	included S80-80	S100-120	included S100-140	S90-140
Other features		Ultracompact design, Aluminium finish	PENTAX-original Ghostless Coating to minimize the adverse effects of flare and ghost images, Hybrid aspherical optical element for high-quality sharp and contrast images and exceptional image-resolving power with outstanding brightness levels even at the edges.	Ultracompact 'Pancake' design	The thinnest interchangeable lens on the market, designed by Marc Newson, Round diaphragm to produce natural, beautiful bokeh (out-of-focus effect)	Round diaphragm to produce natural, beautiful bokeh (out-of-focus effect)	Ultrasonic lens, Weather resistant construction against humidity and dust, Aerobright Coating against flare and ghost images	Aluminium finish	Fish-Eye in a zoom lens	Ultrasonic lens, Weather resistant construction against humidity and dust	Ultrasonic lens	Ultrasonic lens
Reference	N.21800	N.21590	N.21987	N.21550	N.22137	N.22177	N.21790	N.21620	N.21580	N.21577	N.21650	N.21740

## Glossary

**DA** : Autofocus lenses compatible with digital SLR  
**DA\*** : Autofocus lenses compatible with digital and 35mm film format SLR  
**FA** : AF 35mm film format lenses compatible with digital and 35mm film format SLR (not included in the chart)  
**DA\*** : Ultrasonic lenses with extremely fast and silent focus. Weather resistant construction against humidity and dust  
**DA Limited** : Fixed focal length lenses built to demanding standards with metal housings and distinguished by the quality of their elements and the care taken in construction.



**SMC (Super Multi Coating)** Super Multi Coating is the benchmark of all PENTAX lenses. SMC describes a high quality coating of the lens elements that consists of seven microscopically thin layers. Light loss at the lens surface between air and glass is reduced from 4% to 0.2%.



**HD Coating** New High Definition multi-layer lens coating. Thanks to its higher light transmittance with reduced reflection, to deliver sharp, clear images free of flare and ghost images, even under demanding lighting conditions such as backlight.



**AL (Aspherical Lenses)** Contrary to spherical, aspherical lenses do not have a uniformly curved spherical shape. The form of an aspherical lens is adapted to a specific task and the curvature of each is individually computed. The production of these lenses is accordingly complex. The greatest advantage of aspherical lenses: several types of optical aberrations can be corrected at one time. They are used particularly in high-quality lenses allowing for the use of fewer lens elements so that a high luminous intensity is attained.

Zoom			Telephoto zoom				Telephoto			Macro		
smc DA	smc DA	smc DA	smc DA*	smc DA	smc DA	smc DA*	smc DA*	smc DA*	HD DA	smc DA	smc DFA	smc DFA
18-55mm F3.5-5.6 AL WR	18-135mm F3.5-5.6 ED AL (IF) DC WR	18-270mm F3.5-6.3 ED SDM	50-135mm F2.8 ED (IF) SDM	50-200mm F4-5.6 ED WR	55-300mm F4-5.8 ED	60-250mm F4 ED (IF) SDM	200mm F2.8 ED (IF) SDM	300mm F4 ED (IF) SDM	560mm F5.6 ED AW	35mm Macro F2.8 Limited	50mm Macro F2.8	100mm Macro F2.8 WR
27.5-84 mm	27.5-207 mm	28-414 mm	76.5-207 mm	76.6-306 mm	84.5-460 mm	92-383 mm	307 mm	460 mm	859 mm	53,5 mm	76,5 mm	153 mm
76-29°	11.9-76°	76-6°	31.5-11.9°	31.5°-8.1°	29-5.4°	26.5-6.5°	8.1°	5.4°	2.9°	44°	47°	16°
8/11	11/13	13/16	14/18	10/11	8/12	13/15	8/9	6/8	5/6	8/9	7/8	8/9
F3.5-5.6	F3.5-5.6	F3.5-6.3	F2.8	F4-5.6	F4-5.8	F4	F2.8	F4	F5.6	F2.8	F2.8	F2.8
F22-38	F22-36	F22-45	F22	F22-32	F22-32	F32	F22	F32	F45	F22	F32	F32
0.25m	0.40m	0.49m	1m	1.1m	1.4m	1.1m	1.2m	1.4m	5.6m	0.14m	0.19 m	0.30m
52mm	62mm	62mm	67mm	49mm	58mm	67mm	77mm	77mm	112mm	49mm	49mm	49mm
0.34X	0.24X	0.26X	0.17X	0.24X	0.28X	0.15X	0.20X	0.24X	0.10X	1X	1X	1X
68 x 67 mm	73 x 76 mm	75.8 x 89 mm	76.5 x 13.6 mm	69 x 79.5 mm	71 x 111.5 mm	82 x 167.5 mm	83 x 134 mm	83 x 184 mm	130.3 x 521.7 mm	63 x 46.5 mm	67.5 x 60 mm	65 x 81 mm
230 g	405 g	453 g	685 g	285 g	440 g	1040 g	825 g	1070 g	3040 g	215 g	265 g	340 g
included PH-RBC52	included PH-RBC62	included nc	included PH-RBK67	included PH-RBD49	included PH-RBG58	included PH-RBK67	included PH-RBK77	included PH-RBK77	nc	Built-in	included PH-RBC49	included PH-RBE49
S80-120	S80-120	nc	included S90-160	S80-120	included S80-160	included S100-200	included S120-160	included S120-210	included nc	included DA70	included S80-80	included S80-120
"Weather resistant construction against humidity and dust. Lens hood with a PL (polarizing filter) window"	Weather resistant construction against humidity and dust. Smooth autofocus operation using an AF driving motor (DC) installed in the lens barrel.	Ultrasonic lens, Round shaped diaphragm to produce beautiful bokeh	Ultrasonic lens, Weather resistant construction against humidity and dust	Weather resistant construction against humidity and dust. Lens hood with a PL (polarizing filter) window	Ultrasonic lens, Weather resistant construction against humidity and dust. Tripod collar, Flower-type hood	Ultrasonic lens, Weather resistant construction against humidity and dust	Ultrasonic lens, Weather resistant construction against humidity and dust	Ultrasonic lens, Weather resistant construction against humidity and dust. Tripod collar	Weather resistant construction against humidity and dust. Smooth autofocus operation using an AF driving motor (DC) installed in the lens barrel. High Definition multi-layer coating, Built-in removable filter holder	Ultracompact design, High quality finish	Compatible with digital and 35mm format SLR, Aperture Ring for Fingertip Aperture Control, Built-in focus-clamp mechanism to fix focus at any distance	Weather resistant construction against humidity and dust. Compatible with digital and 35mm format SLR, Round diaphragm to produce natural, beautiful bokeh (out-of-focus effect)
N.21880	N.21977	N.21497	N.21660	N.21870	N.21720	N.21750	N.21700	N.21760	N.22180	N.21730	N.21530	N.21910

**ED (Extra-low dispersion ED lens elements)** Normal glass lenses tend to divide the incident light into its various color components, as a prism would do. This happens particularly at the edges, adding unwanted color fringing to the photo. The longer the focal length of the lens the more apparent is the fringing effect. ED glass is an exceptionally high-quality specialist glass that prevents this so-called chromatic aberration to a very great extent.

**IF (Inner Focusing)** Each lens is composed of several groups of lens elements. With an Inner Focusing design only one of these groups is moved. Inner Focusing brings a number of advantages compared to a conventional focusing design where all the lens groups are moved: it works faster and the overall length of the lens remains unchanged so the center of balance remains constant. Additionally, since the front lens element doesn't rotate, filters do not have to be readjusted every time the focus point changes.

**DC (DC Smooth autofocus operation using an AF driving motor (DC Motor) installed in the lens barrel.**

**SDM (Supersonic Direct-drive Motor)** Small motors manage the actual focusing of an autofocus system. With the Supersonic Direct-drive Motor PENTAX has developed a technology that propels the focusing procedure with an ultrasonic motor. PENTAX SDM lenses drive the autofocus system significantly faster and operate more quietly than conventionally driven AF lenses.

**QS (The PENTAX Quick Shift focus system)** allows instant switching between Auto Focus and Manual Focus simply by turning the focusing ring on the lens. A clever clutch mechanism takes care of the rest.

**SP (Super Protection)** coating is a special coating of the front lens element of particular PENTAX lenses. It is based on a fluorine bonding and prevents the contamination of the lens by water-based or oily substances. SP coated lenses are much more easily cleaned of finger marks, smears or other matter than may come in contact with the lens.

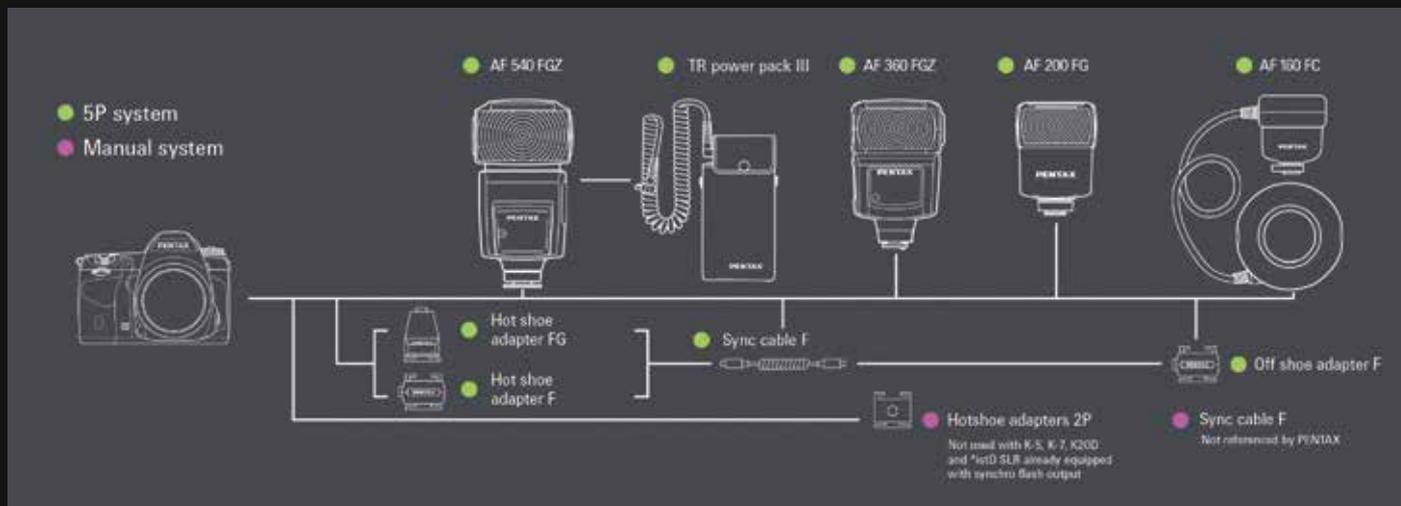
**Water and Dust Protection** Humidity and dirt are the natural enemies of high performance electronics and precision optics. AW lenses provide maximum weather-resistant and dustproof performance preventing the intrusion of drizzle and dust into the lens barrel. WR lenses come with a simplified weather-resistant construction designed to repel a light splash of water.

# The PENTAX flash system

Sufficient lighting is the key requirement for successful photos. That's why PENTAX has developed a total flash system, assuring accurate, consistent, quality light in virtually any situation.

## SYSTEM FLASHES

With PENTAX flash accessories, a wide range of applications are available. We show a few possible combinations here.



## FLASHES



### AF200 FG

Type	ELECTRONIC FLASH		
Guide number	20 at 28mm (M/ISO 100)		
Compensation	Flash exposure -0.5 and -1.0 EV		
Flash functions	P-TTL, A-TTL, Automatic, Manual		
Head	Covering angles of view for 28mm lenses (in 35mm format). 24mm angle of view covered with wide-angle panel vertical : 30°/39°; horizontal : 26,5°/35°		
Flash range	0.7 – 3.6m at F5.6 / ISO 100		
Power requirements	4x AA batteries (or rechargeable)		
Battery life	Recycle time	No. of flashes	
	Alkali-manganese (LR6)	approx. 4sec.	300 approx.
	Nickel metal hydride (Ni-MH)	approx. 4sec.	400 approx.
	AA lithium	approx. 4sec.	450 approx.
Compatibility	Digital, 35mm, 645, 67 (medium format)		
Dimensions	68 x 83.5 x 93mm (W x H x D)		
Weight	190g (without batteries)		

### AF360 FGZ

Type	ELECTRONIC FLASH WITH ZOOM AND TILT HEAD		
Guide number	36 at 85mm, 30 at 50mm (M/ISO 100)		
Compensation	Flash exposure -3.0 to +1.0 EV, in 0.5 EV steps		
Flash functions	P-TTL, A-TTL, Automatic, Manual (6 steps 1/1-1/32), Slave, Wireless, Flash with 1st and 2nd curtain sync, SB function for distance measurement, Contrast Control, High-Speed-Synchronisation		
Head	Auto zoom, manual zoom, vertical bounce: -10°, 0°, 45°, 60°, 75°, 90°		
Flash range	0.7 – 5.4m at f/5.6 / ISO 100		
Power requirements	4x AA batteries (or rechargeable)		
Battery life	Recycle time	No. of flashes	
	Alkali-manganese (LR6)	approx. 6sec.	250 approx.
	Nickel metal hydride (Ni-MH)	approx. 6sec.	160 approx.
Compatibility	Digital, 35mm, 645, 67 (medium format)		
Dimensions	70 x 110 x 115.5mm (W x H x D)		
Weight	270g (without batteries)		
Accessories	Soft case		



## AF540 FGZ

<b>Type</b>	ELECTRONIC FLASH WITH ZOOM, PAN AND TILT HEAD		
<b>Guide number</b>	54 at 80mm, 45 at 5mm (M/ISO 100)		
<b>Compensation</b>	Flash exposure -3.0 to +1.0 EV , in 0.5 EV steps		
<b>Flash functions</b>	P-TTL, A-TTL, Automatic , Manual (7 steps 1/1-1/64), Slave, Wireless, Flash with 1st and 2nd curtain sync, SB function for distance measurement, Contrast Control, High-Speed-Synchronisation		
<b>Head</b>	Auto zoom, manual zoom vertical bounce: -10°, 0°, 45°, 60°, 75°, 90° horizontal rotation: right: 0°, 30°, 60°, 90°, 120°, 150°, 180° left: 0°, 30°, 60°, 90°, 135°		
<b>Flash range</b>	0.8-8m at f/ 5.6 / ISO 100		
<b>Power requirements</b>	4x AA batteries (or rechargeable)		
<b>Battery life</b>		Recycle time	No. of flashes
	Alkali-manganese (LR6)	approx. 6sec.	250 approx.
	Nickel metal hydride (Ni-MH)	approx. 6sec.	160 approx.
<b>Compatibility</b>	Digital, 35mm, 645, 67 (medium format)		
<b>Dimensions</b>	76 x 142 x 107mm (W x H x D)		
<b>Weight</b>	270g (without batteries)		
<b>Accessories</b>	Soft case		

## AF160 FC

<b>Type</b>	RING ELECTRONIC FLASH		
<b>Guide number</b>	16 (M/ISO 100)		
<b>Compensation</b>	Flash exposure 0.5 to -1.0 EV		
<b>Flash functions</b>	Auto P-TTL, Manual (Full, 1/4, 1/16) Controller : 1/16, 1/4, 1/1 (full) Flash unit : independent setting for each light (1 :0, 3 :1, 1 :1, 1 :3, 0 :1) Angles : 60° horizontally and vertically		
<b>Flash range</b>	0.8-8m at f/ 5.6 / ISO 100		
<b>Power requirements</b>	4x AA batteries (or rechargeable)		
<b>Battery life</b>		Recycle time	No. of flashes
	Alkali-Manganese (LR6)	approx. 7sec.	150 approx.
	Lithium (LR6)	approx. 7sec.	250 approx.
	Nickel Metal Hydride (Ni-MH)	approx. 7sec.	200 approx.
<b>Compatibility</b>	Digital, 35mm		
<b>Dimensions</b>	Controller: 68 x 83x 115mm (W x H x D) Flash unit: 113x29.5mm (Diam. x D)		
<b>Weight</b>	405g (without batteries)		
<b>Accessories</b>	Adapter rings : diameter 49mm, 52mm, 58mm, 67mm, for D-FA 50mm Macro and for D FA 100mm Macro		

## FLASH SYSTEM

### TR Power Pack III

The ultimate power source for independent photography.

Professional photography demands sufficient power. This means the TR Power Pack 3 exclusively for the AF540 FGZ. The use of 6x C-type batteries extends the shooting capacity and shortens the recycling time.



<b>Compatibility</b>	AF540 FGZ
<b>Batteries</b>	6x C-type alkaline batteries (NiCd batteries are not usable)
<b>No. of flashes</b>	approx. 700
<b>Recycling time</b>	approx. 4.5sec.
<b>Dimensions</b>	95 x 190 x 40mm
<b>Weight</b>	340 g (without batteries) 740 g (with batteries)
<b>Standard accessories</b>	Connecting cable (1.5m), case, strap

The flash must have batteries installed when using the power pack.

### SYNC CABLE F

The sync cable F is the connector between the flash adapters and is available as a 0.5m spiral cable or a 3m straight cable.



### OFF CAMERA SHOE CLIP

The clamping attachment has a flash foot (without electrical contacts) and is used to attach a flash to an object up to 2.5cm thick.



## Adapters

### HOTSHOE ADAPTERS 2P



Attached to the camera's hotshoe, this adapter provides a JIS-B-type sync socket at the side and a 2P hotshoe at the top.

### OFF SHOE ADAPTER F



Attached to the camera's hotshoe, this adapter incorporates its own hotshoe at the top to provide an extra flash sync contact for connection with a F5P sync cord.

### HOT SHOE ADAPTER FG



Attached to the camera's hotshoe, this adapter lets you position a dedicated flash unit away from the camera body using a F5P sync cord. The flash can be operated alone or in combination with the camera's built-in flash.

### HOT SHOE ADAPTER F



Attached to the camera's hotshoe, this adapter includes its own hotshoe on the top to add another flash unit when using the F5P sync cord.

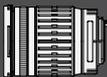
# Your complete range of accessories

Great accessories ensure that you'll get the most out of your camera system.

## Lens line-up

### Interchangeable Lens

DA-series lenses



FA/FAJ-series lenses

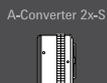


A-series lenses



### Converters

A-Converter 1.4x-S



A-Converter 2x-S

A-Converter 1.4x-L



A-Converter 2x-L



67-system lenses



Adapter K for 67-system lenses



645-series lenses



Adapter K for 645-series lenses



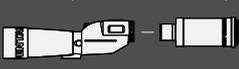
S-mount lenses



K mount adapter



Spotting scope



PF-CA35 camera adapter



## Straps

Shoulder strap



Hand strap



## Storage media

SD



SDHC



SDXC



## Flash System

TR power pack III



AF540 FGZ



AF360 FGZ



AF200 FG



AF160 FC



Extension Cord FSP



Off-camera shoe adapter F



Hotshoe adapter 2P



Hotshoe adapter F



Hotshoe adapter FG



## Finder accessories

Eyecup MII



Oeilleton



Magnifier eyecup O-ME53



Refconverter A



Magnifier FB



Dioptr correction lens M



Focusing screen AF square



Focusing screen divided



Focusing screen scaled



Focusing screen blank



## Other accessories



O-GPS1 GPS unit



Digital spotmeter

## Remote control

Remote control F



O-RC1

Weather resistant remote control



CS-205 Cable switch



## Power sources



Lithium-ion battery



Battery charger



AC cord



AA battery holder

AC adapter



## Data output system

PENTAX Digital camera utility 4™ software



USB cable



AV or HDMI Cable



## Protection



SLR bag



SLR backpack



Neoprene case

## LENS SYSTEM

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### K-Mount Adapter

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This adapter is designed to allow use of PENTAX M42 screw mount lenses on a K mount SLR. Manual exposure only.

### Adapter K for 645-Series Lenses

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This adapter is designed to allow use of 645-series lenses on a K mount SLR.

### Adapter K for 67-System Lenses

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This adapter is designed to allow use of 67-system lenses on a K mount SLR.

### PF-CA35 Camera Adapter

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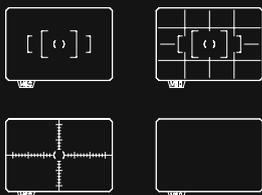
The PF-CA35 allows you to transform your spotting scope from an observation device into a high quality telephoto lens. This solidly built adapter has a total of 5 lenses in 4 groups, all of them fully multi-coated, resulting in brilliant edge to edge sharpness with the finest detail and true colour image reproduction.

Dimensions 59 x 149mm, Weight 250g,  
Works best on a PF-80 or PF-100 scope



## FOCUSING SCREENS

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### Interchangeable Focusing Screens

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For specific professional applications you can replace the standard focusing screen of many PENTAX DSLR's with either a grid screen or a plain ground-glass screen with ruled scale markings.

## POWER SOURCES

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### AC Adapter

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To supply continuous power to your DSLR.



### Battery Grip

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The battery grip increases the power available to take pictures. A number of functions are available on the battery grip to allow ease of shooting in the portrait orientation. Controls vary from model to model and include AE and green buttons, shutter release and depth of field preview.

Weather resistant sealing allows you to store additional SD cards and remote control safely.



### AA Battery Holder

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Some PENTAX DSLR are compatible with the AA battery holder which is very convenient when traveling.

## REMOTE CONTROLS

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### Remote Control O-RC1

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Allows shooting from a distance. Can be used in bad weather (rain, drizzle).



### Remote Control F

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Allows shooting from a distance of approx. 5 meters from the front of the camera and 5m from the back of the camera.



### CS-205 Cable Switch

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This cable is used to trigger the shutter without causing movement of the camera. Particularly useful for macro photography or long exposures.

## PROTECTION

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### DSLR Adventure Gadget Bag

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Comfortably-sized, stylish carrying case. Accommodates camera body, small selection of lenses, memory cards, flash, etc. Includes carrying handle, padded shoulder strap and neoprene water bottle pouch. Approximate dimensions: 10.5W x 7.5H x 7D inches.



### DSLR Sling Bag 2

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Sits comfortably and securely on your back; includes removable waist strap. Features top compartment for flash, lens and/or batteries; middle compartment holds camera/lens with room for accessories; bottom compartment holds up to 3 lenses, or even a backup compact camera.



### DSLR Fashion Pouch

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Compact DSLR case with a soft, padded interior that protects camera/lens. Includes moveable partitions to provide a custom fit. Shoulder strap included.



### DA Limited Lens Case 2

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Molded nylon zippered lens case. For lens protection, case includes soft partitions and a padded interior. Includes built-in strap rings.



## OTHER ACCESSORIES

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### DSLR Padded Strap

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Comfortably padded strap. Compatible with all PENTAX DSLR cameras.

### O-GPS1 GPS unit

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The O-GPS1 unit enables to record shooting location data. It mounts on the hot shoe and records the latitude, longitude, altitude, universal time coordinated (UTC) and direction of the shooting location into captured images Exif data. Using mapping software such as Google Earth™, the user can easily recall shooting locations and directions on a map. The O-GPS1 also offers a Simple Navigation function and an electronic compass function. With its weather-resistant construction, it can also be used in light rain.



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