



PURCHASE GUIDE

ZOOM LENSES -
WHY QUALITY AND
RANGE MAKE ALL
THE DIFFERENCE

A camera's zoom is a game-changer whether you're a pro photographer or a hobbyist. It lets you shoot up close without having to move an inch. For example, if you're up a mountain and want to snap an animal that's far away, you can use your camera's zoom.

Obviously, the power and type of zoom varies from one camera to another. Kodak's bridge cameras have the most powerful zoom lenses. These models are ideal for hardened enthusiasts, hobbyists and professionals who want to perfect their technique or invest in a camera tailored to their needs.

Let's take a look at how zoom works and what it's used for. We'll also look at the bridge cameras we recommend if you're after a powerful zoom lens.



WHAT DOES A ZOOM LENS DO?



Anyone who's taken a photo has probably wanted to snap an object that's far away. Or you may have wanted to shoot something close, but in the minutest detail. A zoom allows you to vary your viewpoints by going from the farthest to the closest point: you can create close-ups or panoramic views.

This means that your zoom can be used in a whole host of situations. You can use it to capture a distant subject, for example, an architectural detail or an animal you can't approach. You can also use it for close-ups such as a detailed shot of a flower. A zoom's also handy when taking portraits or highlighting one or more subjects that are closely-packed.



WHAT'S THE DIFFERENCE BETWEEN OPTICAL ZOOM AND DIGITAL ZOOM?



Nowadays, there are two types of zoom: digital zoom and optical zoom. It's important to know the difference because you'll get a different image definition depending on the one you use.

DIGITAL ZOOM

Digital zoom is an "artificial magnification" of the photographed image. The digital camera's processor performs this magnification. A digital zoom works in the same way as if you zoom in on photo that you're looking at on a device. This type of zoom takes part of the image and enlarges it to the size you're after.

In other words, the digital zoom refers to the virtual magnification of an image.



Professionals who use digital zoom tend to refer to it as 'cropping'.

So, even though you can find extremely powerful digital zoom lenses, the image definition won't be as good as that taken using optical zoom. A high-resolution digital camera will be able to zoom in without losing quality. However, if you zoom in too far for the size of the sensor, you'll end up with a blurry image.

OPTICAL ZOOM



An optical zoom works mechanically. The focal length of the lens is narrowed down to the object you're shooting so that it occupies the entire surface of the sensor. As you adjust your settings, your camera lens will start to move. Optical zoom is used for providing magnification without any loss of image quality.

To understand how your optical zoom works, you need to know that when you activate the zoom you'll be changing the lens's focal length, i.e. you'll be tweaking the camera's optical system. The power of the zoom corresponds to its amplitude: the more powerful your zoom, the more amplitude you have, so you can choose long focal lengths, short focal lengths and more varied angles of view.



Bear in mind that a powerful zoom needs to be accompanied by a good stabiliser: without one, it could take you a long time to get a sharp, wobble-free image if you zoom in to the maximum.

UNDERSTANDING FIXED FOCAL LENGTH AND ZOOM



If you start to experiment with different photography techniques, you'll come across the notions of fixed focal length and zoom.

To take photographs, a camera uses a photographic lens (also known as an optic). It's this lens that reproduces the image captured by the sensor. There are two types of lenses: fixed focal length and zoom.

Unlike a zoom lens, a fixed focal length lens does not change its focal length. It will have a set value, for example, 18 mm or 300 mm. In practical terms, this means that the angle of view always remains the same:

if you want a different angle you have to move in or out or use another lens. Zoom lenses, on the other hand, have variable focal lengths. These are often referred to as minimum and maximum focal lengths.

Both fixed and zoom lenses have their advantages. However, a fixed focal length is more restrictive: you have to move around to frame your subject or lug around several lenses, which are much bulkier than a single zoom lens with a variable focal length.



**BRIDGE CAMERAS:
POWERFUL ZOOM FOR
OPTIMUM IMAGE
QUALITY**



Bridge cameras are digital cameras with a powerful zoom. A bridge camera allows you to take very wide (wide-angle) or distant shots, so you can photograph a panoramic view of a landscape or zoom in on a bird perched high up in a tree. This range of focal lengths makes the bridge camera extremely versatile - it's a go-to for architectural and wildlife photography.

It's also a great camera to take on holidays: with its ergonomic grip and powerful zoom, it suits all situations and lets you take top-quality photos.

The zoom range is an important feature when it comes to choosing a bridge camera. You'll find different types of optical zoom in the Kodak catalogue: their range varies from 25X to 65X depending on the model.

Let's take a look at Kodak's most popular bridge cameras.



THE KODAK PIXPRO AZ255 BRIDGE CAMERA: 25X OPTICAL ZOOM

The Kodak PixPro AZ255 is the ideal bridge camera if you want to take your photography even further. Thanks to its 25X optical zoom, this model will enable you to capture the details of a landscape or architecture while maintaining excellent image quality. The 25X optical zoom is a good place to start if you want to understand the different focal lengths. It's a camera with a wide angle of view, so you can snap panoramas and capture precise details, without having to stand that far away from the subject. What's more, the Kodak PixPro AZ255 can take 360° panoramic photos, so it's the one to pop in your bag if you plan to shoot landscapes during your travels! The model's 24mm wide-angle lens is also great for creating perspective and will add depth for a grandiose result.

A 25X zoom and 24 mm wide-angle lens will also

allow you to get to grips with an important aspect of photography: image composition. With a wide-angle lens, you'll pay more attention to the foreground of your image. For example, when shooting a landscape photograph, you can zoom in on the plants in the foreground and add grandeur to your shot by also capturing the surrounding landscape!

The Kodak PixPro AZ255 camera is also equipped with a range number of settings (22 to be precise) that allow you to adapt your shots to the environment and subject matter: sports, fireworks, sunset... The camera will then take care of the technical aspects of the shot, in particular automatically adapting to light conditions and movements. Note that this model is also a practical travelling companion because it just needs AA batteries.



THE KODAK PIXPRO AZ405 BRIDGE CAMERA: 40X OPTICAL ZOOM

The Kodak PixPro AZ405 has several major pluses: it's a powerful, high-performance model that's also easy to use.

The PixPro AZ405 has a 40X zoom with an optical image stabiliser, which is essential for sharp close-ups! An optical stabiliser is a must if you plan to use powerful zoom lenses. As we explained earlier, if you don't have a stabiliser when zooming in on distant subjects, you'll have problems getting a sharp image. Long focal lengths exaggerate any wobbling, so the photo will be blurred. Optical stabilisation detects the tiniest movements you make and the camera then compensates for these movements by controlling the lens.



While stabilisation is useful when zooming, it's also great when you're in a frenzied environment or tackling uneven terrain!

Opting for a 40X zoom therefore opens up a myriad of possibilities when it comes to taking different shots! This technical wizardry means you can easily shoot distant subjects knowing you'll get a top-notch image quality. If that's not enough, this camera's zoom is coupled with superb image resolution: the PixPro AZ405 has 20 million pixels, a level of resolution that lets you zoom, crop and enlarge your photos to your photographic heart's content. And more you get a device that's easy to carry around and just needs AA batteries.

THE KODAK PIXPRO AZ425 BRIDGE CAMERA: 42X OPTICAL ZOOM

This Kodak PixPro's 42X zoom is a go-to for long-distance shots. So you can be as close to the action as possible without getting into trouble. This model is the must-have bridge camera for shooting animals, for example, if you're on safari or hiking in the mountains.

This powerful zoom model is also equipped with an optical stabiliser that ensures perfect sharpness even with a long focal length. Plus you can also take videos at full zoom and in Full HD for even more impressive results.



The Kodak PixPro AZ425's 20 megapixels allows you to tweak your images by cropping them or zooming in without compromising on image quality. This model is powered by a Li-ion battery.

With this kind of performance, you can really perfect your animal and sports photography skills. This focal length is also great for portraits as such a powerful zoom will not distort proportions and therefore enhances the subject.

THE KODAK PIXPRO AZ528 BRIDGE CAMERA: 52X MEGA OPTICAL ZOOM

To take your photography even further, check out the ultra-powerful 52X zoom of the Kodak PixPro AZ528. This rechargeable battery-powered model combines power and performance in a single bridge camera.

The 52X optical zoom increases ways you can take photos and the subjects you can shoot. This powerful zoom lens can handle anything:

portraits, groups on a distant stage, wildlife, details in a distant landscape, or a detailed close-up of a culinary masterpiece or an exquisite tropical flower. You'll be able to clearly see every detail in every shot.

This bridge model with its powerful zoom also has some impressive tech. The Kodak PixPro AZ528 has a 16-megapixel resolution, a state-of-the-art CMOS sensor, 6fps continuous shooting and high dynamic range.



So now you can see why zoom lenses are a great way to experiment with different types of photography and hone your skills. Choose a zoom that suits your needs and the shots you plan to take. If you're just getting started, try a 25X optical zoom - you'll be impressed by the image quality. As you refine your techniques you can then move up a level and try more powerful zooms and the endless possibilities they offer!



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