

# Shutter Speed

Shutter speed denotes the time that the shutter remains open when taking a picture. It is measured in fractions of a second (so you can imagine that each number has a 1/ in front of it): the bigger the number, the faster the speed. Just as with aperture stops, shutter speeds are set as stops on a scale. The typical standardized shutter speeds are:

1 2 4 8 15 30 60 125 250 500

Each of the numbers in this sequence (each stop) represents a halving to the right on the scale, or doubling to the left on the scale, of the duration the shutter remains open.

Shutter speeds weren't universally standardized until the late 1950s, so earlier cameras may have a slightly different scale, such as 10, 25, 50, 100, 200.

Fast speeds freeze moving subjects, and slow speeds record motion. If you want to avoid motion blur and record sharp images, assuming a normal camera and a steady hand, you should use a minimum shutter speed of as close as possible to 1 over the focal length of the lens: a 28 mm lens, for example, can be held steady at 1/30. If your shutter speed is slower than the reciprocal of the focal length of your lens, you should use a tripod to get a sharp image.

As a general rule you can't achieve sharp, handheld shots at speeds slower than 1/60. With rangefinder cameras, however, you can go down to 1/30 or even 1/15, even though this is below the reciprocal of a normal lens.