



Magnification Beyond Life-Size

If you need a magnification beyond 1x (for life-size), you should reverse the camera lens, using the 49mm or 52mm reverse adaptor K, to obtain the excellent sharpness of your pictures.

To use the reverse adaptor K, couple one end of the adaptor with the K bayonet mount of the Pentax K Series camera while screwing the other end into the 49mm or 52mm filter thread on the front of the camera lens.

Specifications of Combined Lenses and Adaptor

**For further information, please refer to the Close-Up Photography Tables found in other Pentax accessory manuals: "Auto Extension Tube K," "Extension Tube K," "Auto Bellows K," "Slide Copier," and "Bellows Unit K."

SMC Pentax lens	Magnification	Picture area	Film-plane-subject distance	Exposure factor
28mm f/2	x2.12	11.3 x 16.9mm	175mm	x6.6
28mm f/2.8	x1.78	13.4 x 20.1mm	139mm	x5.6
28mm f/3.5	x1.90	12.7 x 19.0mm	154mm	x6.4
30mm f/2.8	x1.83	13.0 x 19.5mm	148mm	x5.7
35mm f/2.8	x1.18	20.3 x 30.5mm	158mm	x3.5
35mm f/3.5	x1.40	17.1 x 25.7mm	153mm	x4.7

Aperture, Depth-of-Field and Recommended Film Types

Super-life-size macrophotography makes the depth-of-field extremely shallow. When a desired depth-of-field is not obtainable even at a minimum aperture setting, it is recommended that you use a finer grain film with higher resolution. You will then be able to enlarge the negative and trim it to your requirements. This produces better results than lowering the magnification ratio to achieve the required depth-of-field.

Using Filters or Lenshoods

Any filter used should be placed between the Adaptor K and the front of the lens, slightly enlarging the magnification ratio. Lens hoods, however, are not designed to be directly attached to the K Bayonet mount on the lens. Therefore, it is advisable to shield the light with something like black cardboard, if necessary.

Exposure Adjustment

All three Asahi Pentax K Series cameras — the K2, KX and KM — have through-the-lens light metering capabilities. This system couples with the Reverse Adaptor K. The exposure must be determined by the "stopped-down" metering method. Refer to the camera's operating manual.

When the available light is below the meter's measurable range, open the aperture and set the shutter at a slow speed, until the meter begins to register. Take the reading. Then stop down the aperture to the desired value while doubling the exposure time for each aperture stop.

Example

Desired aperture f/11. Meter does not register.

Open aperture to f/4. Set shutter speed at 1/4 sec.

Meter now indicates correct exposure.

Stop aperture down to f/11 again. Correct exposure time is 1/4 times 8 = 2 seconds.

When using the Adaptor, lengthy time exposures on color film are likely to result in underexposure and/or unsatisfactory colors. Auxiliary filters, such as the CC filter, often help in such cases. Experience is the best teacher for these situations.

For Better Macrophotography

For professional macrophotography, the SMC Pentax Macro 50mm f/4 and 100mm f/4 lenses are available for use with K Series cameras. The macrophotographic capabilities of these lenses are further expanded by using them in combination with the Auto Bellows K.