

OPTICAL FILTERS

- ▶ Camera filters attach directly to the front of your lens and have a variety of purposes.
- ▶ Photographers use a filter simply to protect the front of their lenses from scratching or other damage.
- ▶ One can also use filters to modify exposure or the quality of the light entering the camera in order to control contrast, tonality, glare, and reflection, or to produce a special visual effect.
- ▶ The most commonly used filters are made of glass and are mounted inside a threaded rim that allows you to screw the filter onto the front of the lens. Gelatin and optical-quality plastic filters can also be used.
- ▶ Glass filters are sized in millimeters according to their diameter. This size must correspond with the diameter of the front of the lens. Common glass filter sizes include 49mm, 52mm, 55mm, 58mm, 62mm, 67mm, and 72mm.



Filter Types

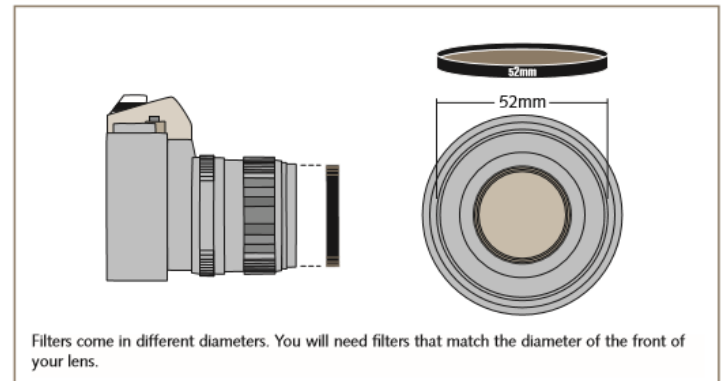
There are several filters made specifically for photographing in black-and white.

- **Lens-protecting filters :**

Lens-protecting filters (clear, UV, and skylight) are the most common filters in use. The front of your lens is highly vulnerable to physical damage from dirt, dust, fingerprints, moisture, and other elements. To minimize damage, many photographers keep a clear filter on the front of all their lenses at all times.

The filters most commonly used for this purpose are a UV and a skylight.

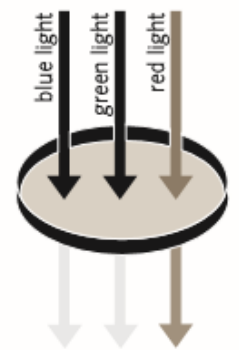
Glass Filters



Filter Types



- **Colored filters** :Colored filters change the black-and-white appearance of colors in the original scene, often increasing image contrast. Filters work this way because they allow more light of their own color to pass through to the film than light of opposite colors.
- **Polarizing filters** : A polarizing filter can reduce subject glare or reflection from smooth surfaces, such as glass, plastic, and water. The filter fits on the front of the camera lens like any other filter but you rotate it until you see the glare or reflection reduced or eliminated.



Filters let light of their own color through and partially block light from opposite colors. Here, a red filter lets much more red light pass than blue or green light.

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- ▶ **UV/IR filters** : Evidence like Blood on dark clothing, gunshot residue, bite marks, semen, ink differences, partially burned items can be made visible with a UV/IR filter.
 - ▶ A UV cut filter is a glass filter that attaches to the front of your camera lens and blocks ultraviolet rays. They used to be necessary for film photography, but now most photographers use them to protect their lenses.
 - ▶ A IR cut filter is a glass filter that attaches to the front of your camera lens and blocks Infrared rays.

