

photokino  
\*News\*

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RODENSTOCK

Rodenstock Photo Optics – a brand of Qioptiq Photonics

HR Digital super MC

Digital pro MC

Superlative UV blocking filters and circular polarizers for extremely sharp digital shots with satisfyingly high contrast.

No adverse effects on the image quality of your valuable premium lenses, no veiling or loss of definition, plus maximum filter effect and ideal color neutrality. With an extremely flat slimline mount with front thread which is free of vignetting even with almost all wide-angle lenses.

HR Digital SUPER MC GERMANY

Gehärtetes Glas - beste optische Oberflächengüte  
extrem kratzfest - flüssigkeits- u. schmutzabweisend  
robuste Messing-Slimlinefassung mit Frontgewinde

Hardened optical glass - best optical surface quality  
extremely scratch resistant - liquid and dirt-repellent  
rugged slim brass ring with front thread

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UV Blocking Filter  
1095-100-005-80 58 mm

Digital pro MC GERMANY

Gehärtetes Glas - beste optische Oberflächengüte  
extrem kratzfest - weitwinkeltauglich - Frontgewinde  
höchste Transmission - robuste Slimlinefassung

Hardened optical glass - extremely scratch resistant  
best optical surface quality - highest transmission  
rugged slim ring - WA compatible - front thread

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Circular Polarizer  
1095-210-005-80 58 mm

Both new filter series  
HR Digital and Digital pro  
are available in all usual  
thread sizes from 49 mm  
up to 82 mm diameter.



Without filter



With UV blocking filter

Blue haze  
in background  
removed

How do HR Digital and Digital pro differ?

Both Rodenstock filter series are made from hardened glass with the highest possible surface quality and are also highly resistant to scratching. Their flat slimline mounts prevent vignetting with wide-angle lenses. The front thread allows the use of a lens hood or of the lens cap with the filter in place.

The filter mount of the less expensive Digital pro MC series is made from hardened, black anodized aluminum and quite light.

The filter mount of the HR Digital super MC series is made of even more robust brass for optimum, smooth movement on mounting and removing. An additional hydrophobic and oleophobic coat, optically neutral, repels almost all liquids and dirt and helps keep the filters clean longer; any grime which may still build up is easier to clean off and the scratch-resistance is further increased.

UV Blocking Filters

UV blocking filters transmit all visible colors of light without loss, but block the ultraviolet rays which are not visible, but which do impact the film and sensors and then produce color distortion.

Where or when does disturbing UV radiation occur?  
The sun not only radiates light, but also ultraviolet (UV) radiation which is of similar intensity, but which is reduced by the atmosphere. In the very clear air by the sea and in the mountains, the UV radiation has a higher intensity and can produce a blue veil effect on photos. It causes a haze-like fogging and a loss of contrast and details at distance.

UV blocking filters ensure natural colors and clear images  
The degree of blue distortion and of fogging due to UV radiation will differ in dependence on the sensitivity of the sensors to ultraviolet radiation and on the UV transmission of the lenses; thicker lenses block more than thinner ones. In each case, however, a good UV blocking filter eliminates all of the disturbing effects of this radiation and thus ensures colors which are as unadulterated as possible, with higher contrast and maximum crispness of details.

UV blocking filters are ideal protective filters for front elements  
Many photographers use UV blocking filters as protective filters since they are easy to keep clean and are cheaper than repairing damaged lenses or lenses scratched during cleaning.

If you do want to leave your UV blocking filter in place at all times as a protective filter, color neutrality is an absolute requirement. Most UV blocking filters also reduce blue-violet and blue, they actually have the effect of a weak yellow filter.

Why Rodenstock UV blocking filters?

Rodenstock UV blocking filters in the HR Digital and Digital pro series cut out all disturbing UV thanks to their steep absorption edge. They do this while still transmitting over 97 % of violet light and even more than 98 % in the remaining visible range!

This ensures ideal neutral color reproduction which eliminates bluing and does not distort colors. The UV blocking filter can thus remain in front of the lens at all times as a protective filter.

Its hardened glass and its highly scratch-resistant coating are much more durable than the glass of the lens elements.

The high-quality optical glass and perfectly planoparallel surfaces with extremely smooth polishing equal to the best lenses ensure lossless sharpness and maximum contrast.

The MC coat, which increases transmission, reduces reflections and avoids scattered light, helps achieve high image contrast and prevents ghost images from multiple reflections between the front lens and the filter.

The extremely thin, but very strong mount allows photos free of vignetting even at very short focal lengths and still has a front thread for a lens hood or a lens cap.

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## Circular Polarizing Filters

Natural light is made up of electromagnetic waves in all possible oscillation directions of equal occurrence. When light is incident obliquely onto electrically non-conductive surfaces, the different oscillation directions are reflected with different intensities; the light is called "polarized". How much it is polarized depends on the angle of incidence of the light. At 0° (perpendicular incidence), no polarization occurs; at an angle of incidence of around 35° to 40°, polarization reaches its maximum and reduces again with a shallower incidence of light.

### What do polarizing filters do and what is changed in the image?

Polarizing filters only allow oscillations to pass in a single polarization plane; only those portions of other oscillations are transmitted which are parallel thereto. A polarizing filter transmits almost 50 % of natural light. The compensation factor of around 2.5 required to compensate for this is automatically taken into account in the TTL exposure measurement. Polarized light from reflections, in contrast, is attenuated more or less or even fully eliminated depending on the rotation of the filter; however, it may also be (relatively) amplified. The greater the shine of the surface, the clearer this effect becomes. With a matt finished surface, the color saturation improves (clearer natural color).

### How can the photographer best use polarizing filters?

The example photos show how a polarizing filter can "magic away" irritating reflections from a pane of glass or from the object itself. The photographer can see how to turn the polarizing filter for ideal attenuation or elimination through the viewfinder of a single-lens reflex camera or on the LCD monitor of other digital cameras. He or she does not need any special physical or technical knowledge.

### What are the advantages of circular polarizing filters?

Circular polarizing filters are linear polarizing filters with an additional " $\lambda/4$  plate" which converts the light leaving the filter into circularly polarized light. This is necessary in cameras with a beam splitter to visualize a portion of the light for the TTL exposure measurement or autofocus measurement. These cameras namely also cause polarizing and, depending on the rotation of the polarizing filter, would attenuate or block the light diverted for the measurement and would result in overexposure or would prevent focusing. Circular polarizing filters are an absolute necessity for single-lens reflex cameras.

### Why Rodenstock polarizing filters?

A **high-performance polarizing film free of veiling and with a neutral color effect** ensures no loss of image definition as well as unaltered colors and the lowest possible light loss.

This polarizing film and the  $\lambda/4$  layer are **cemented between absolutely planoparallel glass plates** to avoid reflections at the glass/air interface as well as further light losses and scattered light.

Both outer surfaces are **incredibly smooth, hardened and MC coated**.

The **slimline, rotatable mount** is so unobtrusive that it does not cause any vignetting even in shots **with very short focal lengths**.

It has a **front thread** for a lens hood and a lens cap.



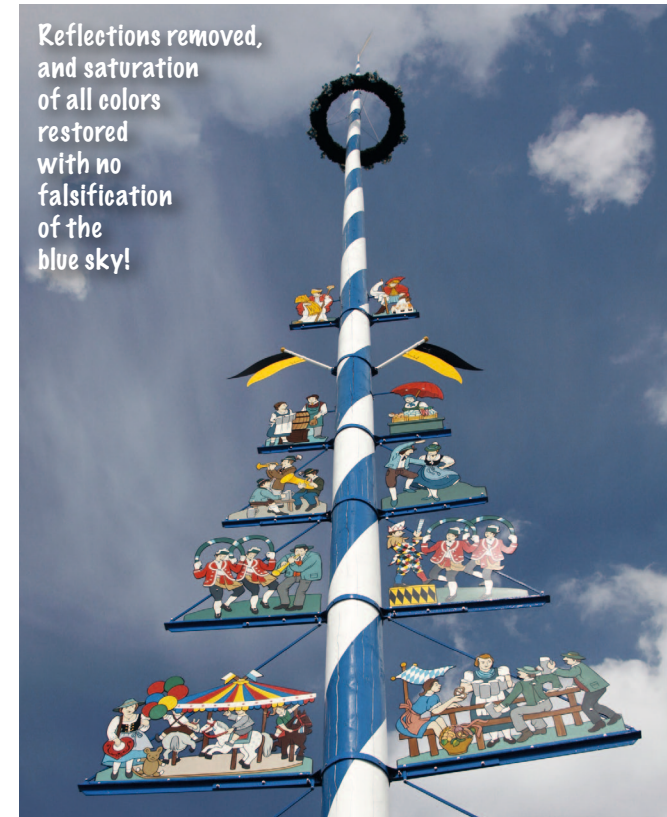
Without filter



With circular polarizer



Without filter



With circular polarizer