

Photographic examples for using Variable ND Filters

The large effective range of Variable ND filters and especially of the new **Rodenstock Digital Vario ND extended** are ideal for extending exposure times (without having to step down too much and so risking high diffraction blur) for desired motion blur, e.g. flowing water, for a wide aperture for tight depth of field, to avoid overexposure in very bright conditions and to control brightness in video shots.

The very slim mount ensures freedom from vignetting, even in combination with wide-angle lenses from a 35 mm equivalent focal length of around 28 mm equal to a focal length from around 19 mm in the APS format (or 17.5 mm in the Canon APS format) and around 14 mm in the MFT or FT format.

How to compose, frame and focus for best results

Because Vario ND filters are intended for a substantial light attenuation to produce very long exposure times or the smallest possible depth of field, the viewfinder image in SLR cameras is necessarily rather dark and cameras with an LCD monitor or an electronic viewfinder may show a very noisy image. The autofocus setting (particularly with phase detection AF in SLR cameras) can also lose accuracy or even fail completely.

We therefore recommend rotating the Vario ND filter to the greatest possible brightness when framing and evaluating the motif and, where necessary, to set the focus manually. Only then should you rotate the Vario ND filter to the desired density (= shading), measure the exposure or activate the automatic exposure control (AE). Since a tripod is anyway needed for long exposure times, this somewhat laborious procedure should not normally be a problem.

Why choose these new Rodenstock Vario ND Filters?

Streak-free, color-neutral polarization films with the highest possible efficiency over the total spectral range ensure no loss in image definition and neutral color rendering in a particularly large shading range up to at least 6 f-stops.

The **high-quality optical glass and perfectly planoparallel finish** with extremely smooth polish at the level of the best lenses ensure lossless sharpness and maximum contrast of the images.

The **mount is surprisingly slim** for a filter having two glass plates which can be rotated and allows **photos free of vignetting** even using wide-angle lenses from a 35 mm equivalent focal length of around 28 mm. Because the outer diameter of the filter is not larger than that of the object mount, **lens shades with bayonet mounts can also be used even when the filter is attached.**

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*** News ***

Digital Vario ND EXTENDED

Variable Neutral Density Filter

New version: Extended density range from 1.2 to 6 f-stops for an exposure time extension factor of 2.3x to 64x without any violet color tinge and without an X-shaped shading



The exposure time extension factors of 400x or even 1000x often given for other variable ND filters are misleading: These filters are color neutral up to 32x or 5 f-stops only because the efficiency of their polarizing filters drops heavily for short wavelengths (blue to violet). Our new variable ND filter **Digital Vario ND extended** with improved polarizing filters provides the capability to darken the passing light for one more f-stop up to a **factor of 64x** or up to **6 f-stops** while maintaining its neutral color rendering.



Digital Vario ND EXTENDED

The **new version** of our Vario ND Filter differs from the previous by the following advantages that are very useful in photographic practise:

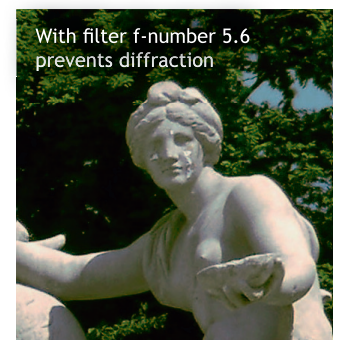
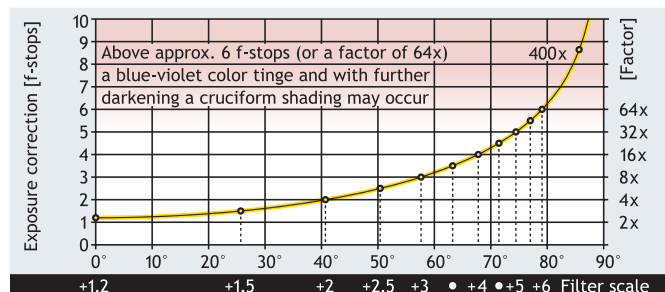
Slimmer frame with a smaller outer diameter
Because of a slimmer frame ring, the outer diameter could be reduced without vignetting when combined with wide-angle lenses. Furthermore, the smaller outer diameter makes it possible to use a lens shade with bajonet mount even when the Digital Vario ND filter is attached to the lens.



Improved efficiency of the polarizing filters for small wave-lengths
Variable ND Filters consist of two polarizing filters, one on top of the other with the frontal one in a revolving frame. The second one is a circular polarizer so that the autofocus and exposure measurement is not impaired. According to the rotation angle more or less light passes the filter (maximum: both polarizers parallel, minimum: both polarizers crossed). The theoretical control range comprises more than 9 f-stops up to an exposure time extension higher than 400x.

However, the efficiency of standard polarizers decreases for short wavelengths (blue, blue-violet) which results in a blue-violet color tinge for a higher darkening than about 5 f-stops or a factor of 32x. This is the reason why our former Vario ND Filter (like those of other brands) provided a color neutral range from 1.5 to 5 f-stops only corresponding to factors from 2.8x to 32x. Higher maximum factors up to 400x or even 1000x as given by most manufacturers are misleading, because they cannot be used for true to nature color photos.

Now our new Rodenstock Filters **Digital Vario ND extended** have got improved polarizing filters with a lower absorption and enhanced efficiency for shorter wavelengths (blue and violet light). As a result, the color neutral range for true to nature color photos has been extended significantly. It starts with 1.2 f-stops or an exposure time extension of 2.3x and goes up to a maximum of more than 6 f-stops or an exposure time extension higher than 64x.



Digital Vario ND extended

Best optical glass · perfect optical surface · high-grade polarizers · variable color neutral reduction of light intensity · scratch resistant · wide-angle compatible · aluminum frame with filter scale

Sizes: 49 / 52 / 55 / 58 / 62 / 67 / 72 / 77 / 82 mm