# 8×42 MADERIN GERMANY Fascination Filters





## YOUR MOMENTS, OUR TECHNOLOGY.

You see the world through your own eyes! And with our B+W Filters you can share your perspective with others. No matter what you photograph - quiet landscapes, fast action, animals, plants, or people - our B+W Filters bring your style to life. All of our filters are both high-tech and high-class products. They reflect over 75 years of experience, know-how, and development - all focused on one goal: to provide you with the best possible tools for the best possible photos.

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## "OR "WOW"?

dial St

Filters are an indispensable accessory for those who want more from their photography than the standard fare. With the right filter you can create exactly the effect that you have in mind. Color. Expression. Feeling. The possibilities are incredibly diverse. No matter if you are an amateur or a professional – often it's the filter which makes the difference between "Quite nice..." and "Wow".

Protect. Create. Adjust.

## TIP

#### Cleaning, storage, transport.

With filters, it's a bit like records - If you treat them well, they can provide a lifetime of service. All of our accessories for cleaning, storing, and transporting can be found starting from page 28.

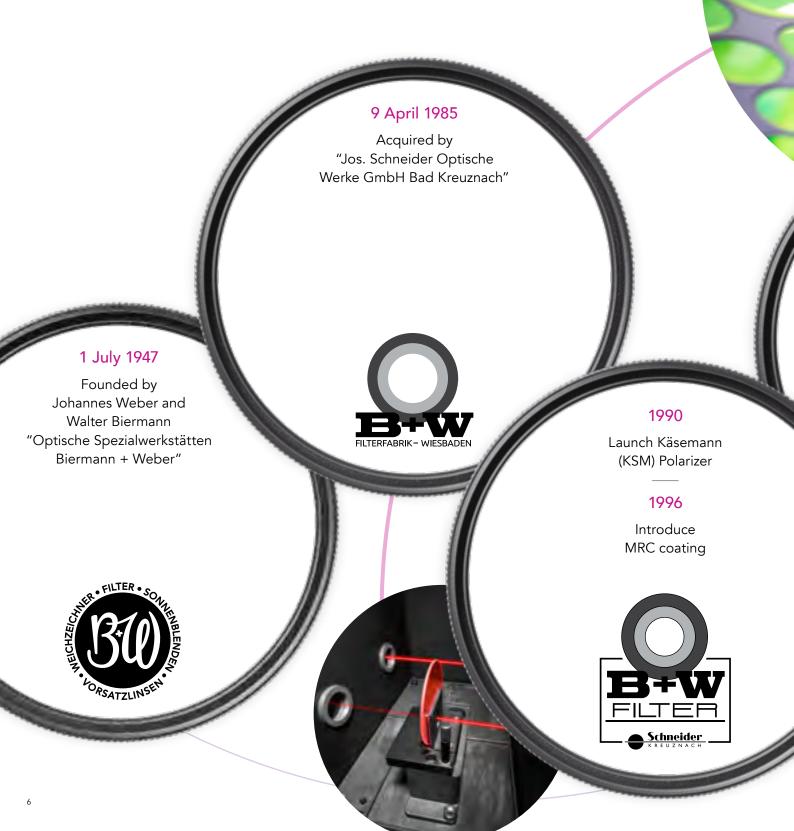
## Light does not forgive.

Light does not forgive. Even the smallest deviations make a big difference to the result. This is a challenge, but it also means: quality pays off, innovation pays off, care pays off. You can see the difference. And that's what drives us! This is also why our B+W Filters have been among the best in the world for more than 75 years - in terms of mechanics, coating, glass quality and user-friendliness. You can feel it! As soon as you hold one of our filters in your hands, it's clear: this is a high-quality product.

60

## TRADITION, INNOVATION AND QUALITY!

B+W Filter can look back on a very successful three-quarters of a century, during we have established a worldwide reputation as a manufacturer of high-quality and innovative filters. That is why we are pleased to present our current program to you. It is the result of over 75 years of research & development, know-how and attention to detail.



#### 2010

Introduce MRC nano coating

#### 2014

Launch "HTC High Transmission Circular Käsemann Polarizer"

#### 2018

Introduce filter mounts with upgraded finish

2020

Launch T-Pro

#### 2021

Launch BASIC and MASTER

#### 2022

75 years of B+W Filter

#### 2023

Launch "HTC High Transmission Circular Käsemann Polarizer" T-Pro Line



7



2002

Launch Soft Pro

2004

Launch Digital Pro



## FILTER LINES



Quality filters that suit you.

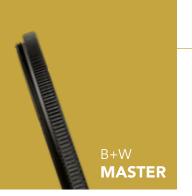
There are three filter lines in our program: BASIC, MASTER and T-Pro.

BASIC is perfectly suited for photographers with high quality awareness. Almost all of our filter types are available in the BASIC line. The MASTER and T-Pro lines meet the highest professional demands. They are equipped with our exclusive MRC nano coating and slim design features. Our B+W Filters are suitable for cameras and lenses with a front thread. In addition, they have also got a front thread themselves for further accessories such as snap caps, lens hoods and additional filters.



## Variety and high quality standards BASIC

- Better grip thanks to a new knurled finish
- Easy to screw on and off, thanks to special lacquering
- Durable, robust brass mount
- Suitable for wide-angle to telephoto lenses
- Available in Ø 37 mm to 105 mm
- MRC coating (except Infrared Filters and Soft Pro)



#### Lightweight for professionals MASTER

- All the advantages of the BASIC line
- Even narrower, even lighter
- Suitable for super wide-angle to telephoto lenses
- Available in Ø 37 mm to 112 mm
- MRC nano coating



#### **Filter line for individualists** T-Pro

- All advantages of the MASTER line, incl. MRC nano coating
- Titanium finish
- Available in Ø 37 mm to 95 mm
- 5 years warranty







six-digit verification code

## 3C7

## Online authenticity check

Quality obligates. You want to be sure that your B+W Filter is an original B+W Filter? Use the authenticity check on our website and enter the six-digit verification code shown on the safety label. You can find it on the side of the packaging.

## FILTER MOUNTS

Easy, precise, versatile, and perfect to handle.

Our mounts offer a combination of precision manufacturing, outstanding materials, easy-grip knurls, and a functional lacquer finish, for easy and precise placement and removal. This allows you to change your filters quickly and easily, while at the same time confirming proper position of rotating mounts.

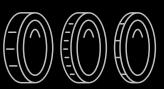




PRECISE



EASY HANDLING



#### **RICH IN VARIANTS**

## TIP

Go easy on them! Yes, filters must be securely fastened, but be careful not to overtighten! The combination of precise manufacturing and functional lacquer, guarantees a tight, precise fit, without the need for force. So, you can change your accessories quickly and easily, without running the risk of overtightening a filter, and causing damage.

## Quality you can touch

#### All of our filters are high-quality products. And you can feel that as soon as you hold them in your hands.

- High-precision production with state-of-the-art CNC machines
- Precise flat support for tension-free seating of the high-quality filter substrates
- High fitting accuracy and functional lacquering guarantee easy and precise screwing and unscrewing
- Easy-grip knurls for better feel and handling
- Stable and durable brass filter mechanism
- Full front thread for additional filters, lens hoods, snap caps, etc.
- Compact designs for zoom, wide-angle to telephoto lenses

	B+W BASIC	B+W MASTER	B+W T-Pro
Material	brass	brass	brass
Color	matt black	matt black	titanium
Front thread	•	•	•
Wide-angle	★ ★ ☆	$\star \star \star$	***
DSLR cameras	★ ★ ☆	$\star \star \star$	***
MFT/CSC	★ ★ ☆	***	***
Full format	from 24 mm	from 17 mm	from 17 mm
APS	from 18 mm	from 10 mm	from 10 mm
Travel zooms	★ ★ ☆	$\star \star \star$	***
Bridge cameras	★ ★ ☆	$\star \star \star$	***
Compact cameras	★ ★ ☆	$\star \star \star$	***
Coating system	MRC*	MRC nano	MRC nano
Weight		★ ★ ☆	***
5 years warranty	-	-	•

\*IR-Filter uncoated

## **COATING SYSTEMS**



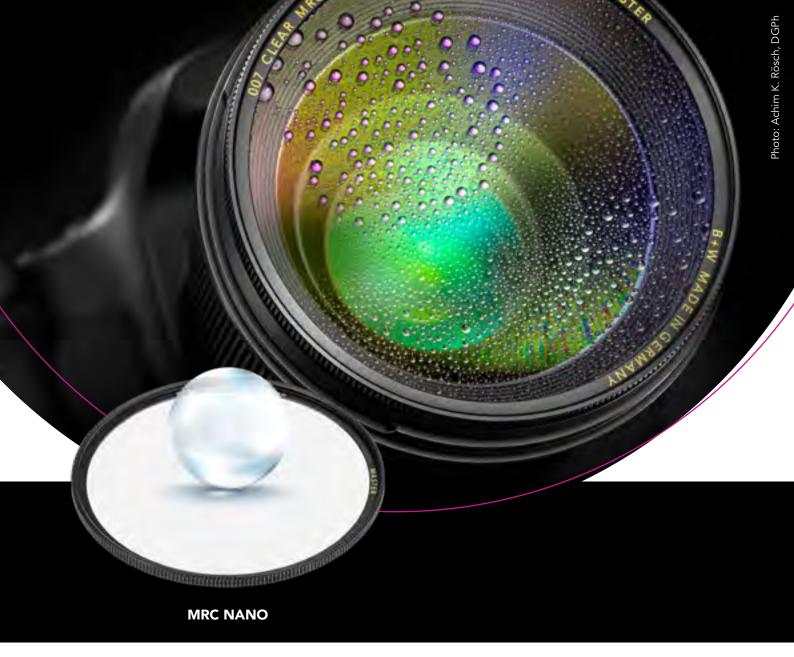
Bring light into the camera.

Coating is the process by which the glass surface of filters becomes non-reflective. And the quality of the coating is crucial for the quality of the filter. Reflections can lead to ghosting or double images. In addition, reflected light does not arrive where we want it to be: On the film or the sensor. This makes a big difference, especially with high-resolution cameras and high-quality lenses.

In addition, our MRC and MRC nano coatings ensure that liquids simply drip off thanks to the lotus blossom effect. It protects against dirt, makes cleaning easier and ensures that you can get started - even with changes in temperature and humidity, as any fogging disappears more quickly.



	MRC	MRC nano
Number of layers	16	16
Wavelength	400 - 680 nm	400 - 680 nm
Reflection	Ø < 0.5%	Ø < 0.5%
Transmission	Ø > 99.5%	Ø > 99.5%
Scratch resistance	★ ★ ☆	***
Water resistance	★ ★ ☆	$\star \star \star$
Dirt resistance	★ ★ ☆	***
Oil resistance	★ ★ ☆	$\star \star \star$
Acclimatization	★ ★ ☆	***
Easy to clean	★ ★ ☆	$\star \star \star$



### World class!

Continuous research and development go into our B+W coatings. We are always investing in, and striving for, the highest quality and innovation possible: Higher transparency, brighter colors, more contrast. When choosing a B+W Filter, you receive the following benefits:

- High transmission, extremely low light loss
- Vibrant colors, high contrast
- Reduced back reflections, no ghost/double images
- Color neutrality
- Water, oil and dirt repellent
- Fast acclimatization
- Scratch resistance

#### **Technical information**

Further technical data, an overview of the filter factor and extension factor, as well as the transmission curves, can be found from page 36.



## **PROTECTION FILTERS**

#### Put an end to dirt and scratches.

One speck of dust and the photo is ruined. One scratch and you need a new lens. With our Protection Filters you can save yourself the trouble and expense. Just put the filter on your lens and leave it there until you want to use other filters. In short, Protection Filters are a standard attachment in everyday life. Constant protection means that your lens element is shielded from dust, and other contaminants. Some of our Protection Filters also offer additional features, for example the filtering of UV light.

#### **Technical information**

#### Three options: Clear, UV, UV-IR

Further technical data, an overview of the filter factor and extension factor, as well as the transmission curves, can be found from page 36.

Our Protection Filters are available in three variants: Clear, UV-Haze and UV-IR Cut. 007 Clear is transparent and permeable for the entire light spectrum. 010 UV-Haze absorbs disturbing UV components and helps you to avoid irritating blue shadows. 486 UV-IR Cut is only permeable for visible light and allows you to take particularly detail-rich images with natural colors.

	007 Clear The professional	010 UV-Haze The classic	486 UV-IR Cut The specialist
Front lens protection	•	•	•
Color-neutrality	•	•	•
Without filter factor	•	•	•
Wide-angle	* * *	* * *	★ ★ ☆
UV block	★ ★ ☆	* * *	* * *
Reduces blue cast	★ ★ ☆	$\star \star \star$	$\star \star \star$
IR cut	★ ☆ ☆	* ☆ ☆	* * *
High transmission	$\star \star \star$	★ ★ ☆	★ ★ ☆
Easy to clean	•	•	•
Coatings	MRC, MRC nano	MRC, MRC nano	MRC
Available filter lines	BASIC, MASTER, T-Pro	BASIC, MASTER, T-Pro	BASIC



FRONT LENS PROTECTION



QUICK, EASY CLEANING



ALSO SUITABLE FOR 4K AND 8K CAMERAS

## POLARIZING FILTERS

Less reflections, more intense colors.

Polarizing Filters can achieve some of the most interesting and important effects in photography. Therefore, they belong in the basic equipment kit of every photographer. With Polarizing Filters, you can reduce reflections and achieve a clearer, less disturbed image, for example, when photographing reflective, non-metallic surfaces such as windows, glass vitrines, or water surfaces. You can also enhance colors and achieve higher contrasts, for example, between foreground and sky. The results can be dramatic!



STRONG CONTRASTS



**REDUCED REFLECTIONS** 



#### **BRIGHT COLORS**

## BASIC, MASTER, T-Pro: Polarizing Filters for every requirement

	Circular Polarizing Filter	High Transmission Käsemann
Brighter colors	***	***
Reduced reflections	★ ★ ☆	$\star \star \star$
For high-resolution cameras	★ ★ ☆	***
Extension factor	3 - 4	2 - 3
Aperture stops	approx. +1.5 - +2	approx. +1 - +1.5
Coatings	MRC	MRC nano
Available filter lines	BASIC	MASTER, T-Pro

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## TIP

B+W MADEIN CERTIFICATION

- The polarization effect is strongest at a 90° angle to the sun.
- You can find the optimum setting for your image by turning the filter and checking the result in the viewfinder of your DSLR camera or on the camera LCD.
- With wide-angle lenses an even polarization effect cannot be achieved, as uneven darkening may occur.

## ND FILTERS

For photos that not everyone can take.

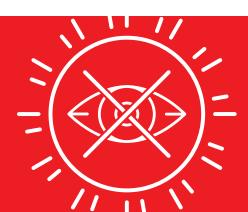
With ND Filters, you can expand your repertoire by impressive effects that are not easy to create. From wiping effects and light traces to the targeted reduction of the depth of field - the creative potential is huge, and the areas of application are diverse. ND Filters are perfectly suited for all those who want to delve deeper into the art of photography.



## The trick: Our special coating

All of our ND Filters are made of high-quality, finely ground, and polished base glass. The effect of these filters cannot be achieved without a special coating. That is why we do not use the classic B+W Filter MRC nano coating here, but an innovative coating combination with a homogeneous filter effect and high color fidelity.

Туре	Filter Line	Density	Filter Factor	Apertures	Transmission (%)
802	MASTER	0.6	4	+2	25.0
803	MASTER	0.9	8	+3	12.5
806	MASTER	1.8	64	+6	1.6
810	MASTER	3.0	1,000	+10	0.1



#### ATTENTION

Whether solar eclipse or not: ND Filters are not suitable for direct observation of the sun! They do not filter out UV and IR radiation that is harmful to the eyes.



## TIP

For beginners it can be a challenge to achieve optimal results with ND Filters at first. There are a few things to consider and often it is necessary to maintain perfect conditions over a longer period. With these tips, you'll have everything you need to get fantastic shots right from the very beginning!

- Use a stable tripod. Again, good equipment is 50% of success.
- Work in Bulb mode "B" for long exposures.
- Use the remote control of your camera app.
- Do not rely on the automatic mode but set the exposure values manually.
- Use low ISO values and choose a small aperture.
- Use Live View for control.
- Use the RAW file format to make post-processing easier.
- Cover the camera's viewfinder while taking the photo.
- Remember to turn off the noise reduction program.

#### **Technical information**

Further technical data, an overview of the filter factor and extension factor, as well as the transmission curves, can be found from page 36.



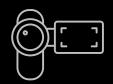
## ND VARIO FILTER

Flexible light control without changing filters.

The ND Vario Filter gives you infinite control over the density from +1 to +5 stops. Whether you choose a wide aperture to cleanly separate your main subject from the background, or go for long exposures to give flowing water a soft character - our ND Vario helps you to create your perfect photo. For hobby filmmakers, it also offers optimal light balancing for video and film recordings.



STEPLESS ADJUSTMENT +1 TO +5 STOP LEVELS



IDEAL FOR FILM FOOTAGE



LIGHT, PRECISE FILTER MECHANICS



#### X across the photo? No way!

Light rays run differently in the center of the image than at the edges. Initially, this shows in the darkening of the corners. However, in more pronounced cases it can have effects right up to image center. That is when an X-shaped shadow appears to lie above the image. Such extreme cases occur with wide-angle lenses 28 mm and shorter. To avoid this effect, our ND Vario has a stop for the brightest and a stop for the darkest position. NOTE: The markings are for reference only, and do not represent specific stops.

Den	sity		Filter F	actor		A	pertur	es	Tran	smissic	on (%)
	0.3			2				1			50.0
	0.6			4				2			25.0
	0.9			8				3			12.5
	1.2			16				4			6.3
	1.5			32				5			3.1
Lens Mount	46	49	52	55	58	62	67	72	77	82	95
Front Thread	49	52	55	58	62	67	72	77	82	86	105

## ND GRADUATED FILTERS

Connecting heaven and earth.

ND graduated filters are half transparent and offer a graduated gray filter effect on the other half. They can be used to balance the contrast between the sky and the landscape in a targeted manner - for example, to impressively emphasize clouds. For quick and easy adjustment of the filter effect, our graduated filters are equipped with a rotating mount. They are designed in such a way that the transition is soft and no hard edges are created. In addition, the filters are characterized by high color neutrality. Our proven MRC nano coating and the high-quality special glass from which the filter is made bring out the full image quality of your lens.



#### NEUTRAL GREY TINT WITH SOFT TRANSITION IN THE MIDDLE



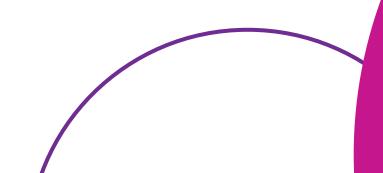
LIGHT COMPENSATION WITH HIGH CONTRASTS BETWEEN SKY AND LANDSCAPE



TRANSMISSION 711 (50%) AND 714 (6.3%) IN THE EDGE AREA

Туре	Filter Line	Density	Apertures	Transmission (%)
711	MASTER	0.3	1	50.0
712	MASTER	0.6	2	25.0
713	MASTER	0.9	3	12.5
714	MASTER	1.2	4	6.3

Values apply at the darkest point on the edge.



MASTER

## TIP

13 GND 0.9 MRC nano

• ND Graduated Filters are not always easy to deal with. If this filter is new to you, we recommend you to simply go out and gain experience. In this way you will know how to use them when it counts.

YNAMA30 WIJOAN

- Use the viewfinder to check the positioning of the filter on the horizon.
- Using an ND Graduated Filter will give you more options for the post-processing on the computer. Without a filter, for example, the exposure range between sky and fore-ground, may prove difficult to manage.
- For best results, you should aim for a correct exposure of the foreground (landscape without sky) without an ND Graduated Filter. These values combined with the ND Graduated Filter almost always result in an optimal reproduction of the bright sky.

## **BLACK & WHITE FILTERS**

Colored filters for fascinating contrasts.

The filters themselves are colored, but they are mainly used to achieve expressive black and white contrasts. For example, you can add brilliance to clouds. These filters open a wide range of possibilities, especially for experimental photography and playing with contrasts. OP TON A95 MRC

#### Four colors, numerous possibilities

#### 022 Yellow 495 MRC

The standard filter for black and white photography.

- Visible higher image contrasts
- Ideal for landscape photography and plant photography
- Corrects light skin blemishes
- Filter factor approx. 2

#### 040 Orange 550 MRC

Sharper, almost graphic contrasts.

- Significantly more contrast in cloudy skies
- Conceals even more pronounced skin blemishes
- Plastic representation of landscapes, architecture, and flora
- Filter factor approx. 4

#### 090 Red Light 590 MRC

Increased contrasts to the point of alienation.

- Dramatic landscapes with thunderstorm atmosphere
- Clear, impressive architectural shots
- Increased tonal separation
- Filter factor approx. 5





ENHANCED GREY TONES FOR MORE INTENSE CONTRASTS

BASI

YNAMSI D W

ALSO SUITABLE FOR 4K AND 8K, DIGITAL AND ANALOG AS WELL AS COLOR AND MONOCHROME CAMERAS



#### IMPROVED RESOLUTION AND HIGHER SHARPNESS

#### 091 Red Dark 630 MRC

Extreme contrast to the point of graphic alienation.

- Cloudy skies turn into highly dramatic stormy skies
  - Dunes become moonscapes
    - Beginning Wood Effect (green plant parts appear white)
      - Filter factor approx. 8

All our Black & White Filters are available in the BASIC filter line.

#### Technical information

Further technical data, an overview of the filter factor and extension factor, as well as the transmission curves, can be found from page 36.

## **INFRARED FILTER**

Extreme contrasts for experimental black and white images.

Our Infrared Filter is our special filter for extreme contrasts, with which you can create experimental black and white photos. The Wood Effect is particularly interesting: leaves and grasses appear brilliant white. This is due to the special properties of chlorophyll. On the one hand it is transparent in the infrared range, so that the light of the water contained in the plant is reflected, and on the other hand, chlorophyll absorbs short-wave light and emits it with a wavelength shift in the infrared range.



Our Infrared Filter is available in the BASIC filter line.

### Discover the magic of contrasts: Allow your creativity to run free!

#### 093 IR Black 830

- Blocks the visible light spectrum
- IR photography with extremely high contrasts
- Pronounced Wood Effect

#### **Technical information**

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Further technical data, an overview of the filter factor and extension factor, as well as the transmission curves, can be found from page 36.

## TIP

When using Infrared Filters, there are a few things to keep in mind for best results. With these application tips, you'll have everything you need to get started:

JISV

<sup>o</sup>hoto: Uwe Statz

- Optimal IR effects only occur in very bright light.
- Check the IR capability of your camera by holding an IR remote control towards the camera and pressing the function button. If a white spot appears on the display of the camera, the sensor has sufficient residual sensitivity for IR photography.
- IR photography requires longer exposure times. Therefore, use a tripod.
- Observe the IR index when adjusting the distance on your lens, to compensate for the focus difference that occurs.
- Adjust the focus manually before attaching the filter.
- Choose a small aperture and determine the correct exposure time with a test series.
- IR images must be processed afterwards with an image processing program.



## ACCESSORIES EXCLUSIVE LEATHER COLLECTION



Protection, transport, comfort.

Our high-quality accessories are made of the finest cowhide. Whether a camera strap, hand strap or filter cases: They all offer comfort, protection - and a smart look!

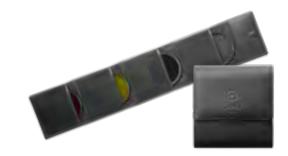
- Handcrafted leather
- Manufactured in a traditional leather factory
- Fine, black cowhide with a very pleasant feel
- High quality with sturdy seams



Leather Camera Strap and Hand Strap

With soft padding for extra comfort.

- Total length strap: 150 cm
- Total length hand strap: 33.5 cm



**Leather Filter Case** 

Editions for 2, 3 or 4 filters up to  $\emptyset$  77 mm. For quick access, the filters are stored in nets arranged one below the other.

## ACCESSORIES POLARIZER FILM

Experimenting with photography.

Polarizer film and polarized light help you to take photos with particularly vivid color effects. Just attach the polarizer film in front of a light source (e.g., flash units, LED photo lamps, etc.) with an adhesive strip, rubber band, clamp or similar. The film is color-neutral and homogeneous. And it can be easily cut, punched, and bent. So, there are no limits to your experimentation.

## Linear and in different sizes

- Repro technology for reflection-free photographic results
- Effective range across the visible light spectrum
- Wide range of applications like Inverting for LCD displays, visualization of tensions in materials, creation of impressive color effects

• Available in thickness 0.3 mm (foil thickness for flexibility only, no optical difference).

## ATTENTION

- Some lamps, such as incandescent or halogen lamps, emit heat as well as light. DO NOT use them with polarizer film, as this will melt the foil.
- Avoid hot spots (point-shaped heat exposure), as this will also damage the pol foil.
- The polarizer film is supplied with a protective film. Remember to remove it before use.

## LENS HOODS



Must-have for better image quality.

With a lens hood, you can achieve a better image quality - for almost any image motif. How? The lens hood prevents disturbing light from coming in from the sides. This gives you clearer contrasts and colors. In addition, the lens hood (also known as a lens shade or sun visor) functions as a practical crumple zone that protects your expensive lenses. In short: Lens hoods are accessories that you should only remove for specific reasons. In most cases, it is better to have one on your lens.

NO DISTURBING LIGHT IRRADIATION



PROTECTION OF THE CAMERA LENS



ESPECIALLY SUITABLE FOR OUTDOOR & NIGHT PHOTOGRAPHY

### Our models

#### **Collapsible Rubber Lens Hood 901**

- High-quality reflection-free rubber
- Connection ring made of robust brass
- Functional lacquer for easy screwing on and off
- For standard lenses (50 mm/FF) and longer
- Inner groove structure avoids reflections

#### Metal Lens Hood

- Particularly robust design
- Precisely manufactured tubes
- Black anodised aluminium
- Inner grooves act as light labyrinth to avoid reflections
- Lens Hood 950: For standard focal lengths (50 mm/FF)
- Lens Hood 970: For wide-angle lenses with more than 70° angle of view
- Lens Hood 960: For telephoto lenses from 85 mm/FF

## TIP

• Actually, lens hoods can always be used, except when you are using a flash unit (this can cause distracting shadows).

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- When using lens hoods for zoom lenses, choose the shortest focal length to avoid vignetting.
- The lens hood has no effect on frontal backlighting or light sources within the image.

## ACCESSORIES CLEANING

Clean optics for outstanding images.

No matter how good your camera equipment is, dust, fingerprints and other contaminants will ruin even the most stunning image motif. With our cleaning accessories, you can make sure that your filters and lenses are as clear and clean as on the day you bought them.

#### Lens Cleaner

#### Set (2 parts)

- Lens Cleaner Pump Spray, 50 ml
- Photo Clear Cleaning Cloth, 20 x 18 cm

#### **Travel Cleaning**

#### Set (4 parts)

- Photo Clear Cleaning Cloth black, 20 x 18 cm
- Bellows, 9 cm
- Lens Cleaner Pump Spray, 30 ml
- Cotton Pouch

#### **Cleaning Set**

#### (5 parts)

- Cleaning Cloth, 20 x 20 cm
- Cleaning Brush, 12 cm
- Bellows, 15 cm
- Lens Cleaner Pump Spray, 50 ml
- Cotton Pouch

#### Lens Cleaner Pump Spray

For stubborn dirt

- Filling quantity: 50 ml
- Streak-free application
- Non-flammable + biodegradable
- Filling quantity: 30 ml (in Travel Cleaning Set only)

#### Bellow

Contactless dust removal

- Precise air nozzle guide
- Length: 15 cm
- Small version: 9 cm (in Travel Cleaning Set only)

#### **Microfiber Cleaning Cloth**

For perfect cleanliness

- MASTER (22 x 22 cm)
- Photo Clear (20 x 18 cm), available in colors black, navy, blue, pink
- Both washable at 40°C

#### **Cleaning Brush**

Gentle cleaning

- Fine goat hair
- Professional version with magnet: 15 cm
- Version without magnet: 12 cm (in Cleaning Set only)





## TOOLS FOR EVERYDAY PHOTOGRAPHY



The

#### Nylon Single Filter Case

- Lined nylon fabric
- Window for labeling
- 11.5 x 11.5 cm up to Ø 52 mm
- 14.5 x 14.5 cm up to Ø 105 mm
- 20.0 x 20.0 cm up to Ø 112 mm



#### Nylon Filter Case 4x and 6x

- Foldable, padded case
- For 4 filters up to Ø 86 mm
- $\bullet$  For 6 filters up to Ø 62 mm



#### Leather Single Filter Case

- Window for labelling
- S: For filters up to Ø 49 mm
- M: For filters up to Ø 77 mm
- L: For filters up to Ø 95 mm
- XL: For filters up to Ø 112 mm



#### Snap-Cap 311

- Snap cap locks into the filter thread
- Secure fit
- Internal grips
- Quick unlocking



#### **Reducing Ring**

- Precise and robust
- Made of brass
- Functional lacquer for easy screwing on and off
- Made in Germany

## TIP

Only fit larger filters to smaller lens diameters (vignetting)!

## **DELIVERY PROGRAM**

Here you can find an overview of our complete product range on two pages.

				Ø → Dimensions in mm	<b>37</b> 37 x 0.75	<b>39</b> 39 x 0.5	<b>40,5</b> 40.5 × 0.5	<b>43</b> 43 x 0.75	<b>46</b> 46 × 0.75	<b>49</b> 49 x 0.75	<b>52</b> 52 × 0.75
	Mount	Туре		Coating							
	TDre	007	Clear	MRC nano	•	•	•	•	•	•	•
	T-Pro	010	UV-Haze	MRC nano		•		•	•	•	•
E	MACTED	007	Clear	MRC nano	•	•	•	•	•	•	•
Protection Filters	MASTER	010	UV-Haze	MRC nano	•	•	•	•	•	•	•
F II		007	Clear	MRC	•	•	•	•	•	•	•
	BASIC	010	UV-Haze	MRC	•	•	•	•	•	•	•
		486	UV-IR Cut	MRC	•	•	•	•	•	•	•
ő	T-Pro	HTC	High Transmission CPL Käsemann	MRC nano	•	•	•	•	•	•	•
Polarizing Filters	MASTER	HTC	High Transmission CPL Käsemann	MRC nano	•	•	•	•	•	•	•
ă ii	BASIC	S03	CPL Circular Pol	MRC	•	•	•	•	•	•	•
	MASTER	802	ND 0.6	MRC nano	•	•	•	•	•	•	•
ND Filters	MASTER	803	ND 0.9	MRC nano	•	•	•	•	•	•	•
ND F	MASTER	806	ND 1.8	MRC nano	•	•	•	•	•	•	•
	MASTER	810	ND 3.0	MRC nano	•	•	•	•	•	•	•
ND Vario Filter	XS Pro	CHT	ND Vario	MRC nano	-	-	-	-	•	•	•
	MASTER	711	Graduated ND 50% MRC	MRC nano	-	-	-	-	-	•	•
lated	MASTER	712	Graduated ND 25% MRC	MRC nano	-	-	-	-	-	•	•
ND Graduated Filters	MASTER	713	Graduated ND 12.5% MRC	MRC nano	-	-	-	-	-	•	•
ND Filt	MASTER	714	Graduated ND 6.3% MRC	MRC nano	-	-	-	-	-	•	•
	BASIC	022	Yellow 495	MRC	•	•	•	•	•	•	•
Black & White Filters	BASIC	040	Orange 550	MRC	•	•	•	•	•	•	•
lack & lters	BASIC	090	Red Light 590	MRC	•	•	•	•	•	•	•
	BASIC	091	Red Dark 630	MRC	•	•	•	•	•	•	•
Infrared Filters	BASIC	093	IR Black 830	-	•	•	•	•	•	•	•

<b>55</b> 55 × 0.75	<b>58</b> 58 x 0.75	<b>62</b> 62 x 0.75	<b>67</b> 67 x 0.75	<b>72</b> 72 x 0.75	<b>77</b> 77 x 0.75	<b>82</b> 82 x 0.75	<b>86</b> 86 x 1.0	<b>95</b> 95 x 1.0	<b>105</b> 105 x 1.0	<b>112</b> 112 x 1.5
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## FILTER FACTOR

Almost every filter absorbs a part of the light. The loss of light is compensated by a correspondingly longer exposure. The filter factors given here apply to daylight and are approximate values that depend on various factors - e.g., the lighting conditions, the sensor sensitivity, the desired result and more. With built-in exposure meters, the adjustment is automatic, but it may still be advisable to create an exposure bracket to achieve a perfect individually adjusted result.

Туре		Filter Factor*	Apertures**
007	Clear	1	0
010	UV-Haze	1	0
486	UV-IR Cut	1	0
HTC	Pol High Transmission Circular Käsemann	~ 2 - 3	~ +1.0 - +1.5
S03	CPL Circular Pol	~ 3 - 4	~ +1.5 - +2.0
802	ND 0.6 +2' 25.0 %	4	2
803	ND 0.9 +3' 12.5 %	8	3
806	ND 1.8 +6' 1.6 %	64	6
810	ND 3.0 +10' 0.1 %	1,000	10
CHT	ND Vario	2 - 32	1 - 5
022	Yellow 495	2	1
040	Orange 550	4	2
090	Red Light 590	5	21⁄4
091	Red Dark 630	8	3
093	IR Black 830	Diff.	Diff.
711	GND 50 %	2**	+1**
712	GND 25 %	4**	+2**
713	GND 12.5 %	8**	+3**
714	GND 6.3 %	12**	+4**

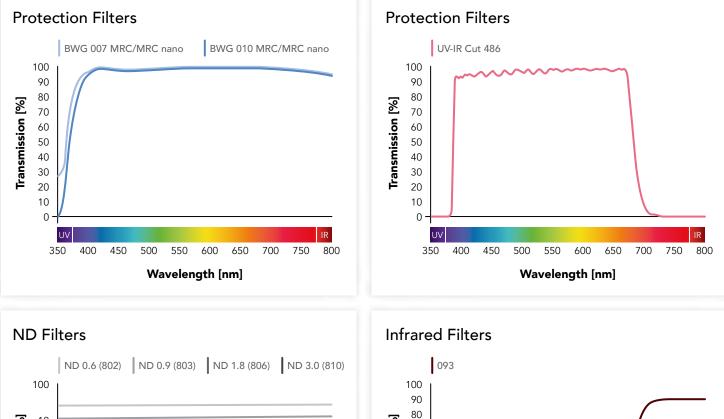
#### Height of filter mounts without screw-in thread

Gradient	<b>T-Pro</b> Photo	<b>T-Pro</b> Pol	<b>MASTER</b> Photo	MASTER Pol	<b>ND</b> Vario	<b>BASIC</b> Photo	<b>BASIC</b> Pol
x 0.75	2.9 mm	3.7 mm	3.4 mm	4.2 mm	9.8 mm	4.4 mm	6.7 mm
x 0.5	2.9 11111	3.7 mm	3.4 ጠጠ	4.2 mm	7.0 [11[1]	3.9 mm	0.7 11111
x 1.0	Ø 86 = 3.4 mm Ø 95 = 4.1 mm	4.2 mm	Ø 86 = 3.7 mm Ø 95 = 4.4 mm	5.2 mm	10.6 mm	5.3 mm	8.2 mm
x 1.5	-	-	Ø 112 = 6 mm	Ø 112 = 6.1 mm	-	-	-

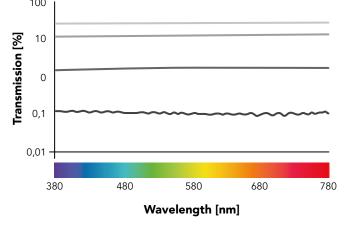
\* Base value

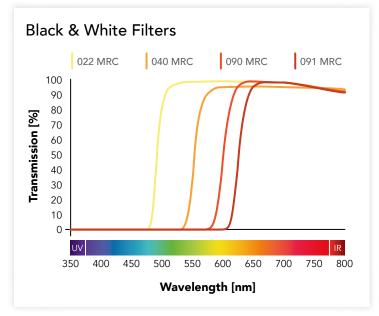
\*\* Measured at the darkest edge

## **TRANSMISSION CURVES**



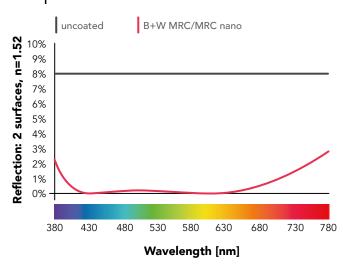
**Iransmission** [%]





#### Comparison of coated vs. uncoated filters

Wavelength [nm]



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