

HELIOPAN

GENERAL FILTERS

FILTERS

358

Heliopan glass filters are made exclusively with glass from Schott (Zeiss) the world's finest optical glass supplier. "Dyed in the mass" and ground, polished and coated to the highest standards of the German optical industry, all Heliopan screw-in type and series size filters are mounted in precision black anodized brass rings to eliminate binding or cross threading and to ensure optimal alignment. The care, quality and performance of Heliopan's filters make them simply the world's finest filters!

Besides the usual range of filters, Heliopan supplies many different types of polarizers, Zeiss Softars and a full range of special effect filters. All filters that will benefit from coatings are hard coated on both sides, 16 layer multi coatings (SH-PMC) are also available on many Heliopan filters.

Slim mounts for use on wide angle lenses without vignetting is standard on the most common sizes and types. The slim mounts are made of black anodized brass stock and have so little rim in front of the lens (5.4 mm) that they will not vignette with lens as short as 21mm. Yet even though they are so slim, they still retain front threads for a lens cap, a lens hood or even stacking a second filter!



SH-PMC Multicoating

Reflection on glass to air surfaces is one of the major causes of contrast loss in lenses, which under extreme conditions, make quality photography impossible. The quality inherent in the lens should not be reduced by using filters with inferior coatings. Heliopan's SH-PMC filters are coated with 8 layers on each side. This not only reduces the reflections in the visible areas of the spectrum to almost 0% but it also repels moisture and dust. Consequently the coating provides the greatest protection against damage to the filter and is easier to clean than the lens itself.

UV Filter EV 0x, LV - 0.0

The UV filter, also known as a haze filter, is not only an excellent universal filter for visually improving photographs with all types of films, it can always stay on the lens for protection from dust, fingerprints, moisture, etc. and for use under extreme conditions. It absorbs the short wave portion of the spectrum so under hazy conditions a clearer reproduction of the scene is possible. The loss of sharpness caused by UV rays and the bluish tones common in infinity scenes are eliminated with the colorless UV filter.

Neutral Density (ND) Filters

Neutral density filters are a useful tool for controlled light reduction. They permit less depth of field under bright light, since the aperture has to be opened. Or one can eliminate changing film types if a high speed film is used. In addition, long time exposures are possible by using strong ND filters in sun light. ND filters are manufactured from color neutral Schott glass and therefore can be used for B&W and color photography. They are available in 3 densities:

ND 0.3: A light gray filter with minimum light absorbtion.

ND 0.6: A medium gray filter used for portraits and out-of-focus backgrounds.

ND 0.9: A dark gray filter that increases the effect of the medium gray.

Density	Light Loss	Filter Factor	Exposure Correction
ND 0.3	50%	2x	-1
ND 0.6	25%	4x	-2
ND 0.9	12.5%	8x	-3

Graduated Neutral Density Filters

Often it is necessary or desirable to balance the light intensity in one part of a scene with another. This is especially true in situations where you don't have total light control, as in bright contrasty landscapes. Exposing for the foreground will produce a washed-out, over-exposed sky while exposing for the sky will leave the foreground dark and under-exposed. Grad ND filters are part clear, part neutral density and are available in grades of .3 (1-stop) or .6 (2-stops). They allow the transition to be blended into the scene, often imperceptibly. A Graduated ND .6 with a two stop differential will generally compensate the average bright sky-to-foreground situation and is also the most popular density of the series.

Graduated ND factors: **Graduated ND.3:** (exposure factor = 2x; exposure adjustment = 1 stop; reduces ISO 1/2)

Graduated ND.6: (exposure factor = 4x; exposure adjustment = 2 stops; reduces ISO 1/4)



EQUIPMENT LEASING AVAILABLE

B&W FILTERS

Light Yellow (5) EV

Slightly reduces blue and is suitable for all outdoor exposures. Slightly darkens blue sky. White clouds become more visible. Snow scenes are more brilliant. Filter factor is approximately 1.5 to 2x.

Medium Yellow (8)

The standard filter for black & white. It reduces blue more than light yellow. With this filter and the use of panchromatic negative material one produces gray values closer to the actual scene being photographed. Enhances reproduction of clouds in landscapes and is great for contrast improvement with a low sun. Filter factor is approximately 2.5 to 3X

Yellow Green (11)

Moderately reduces blue tones, reduces reds and lightens green tones. Good filter choice for spring/summer landscapes with a lot of foreground. Corrects the tonal value for reproduction of individual colors on panchromatic material with artificial light. Filter factor is 2x.

Green (13)

More effective than the yellow green (#11). Reduces blue and red. Especially useful for portrait and still life photography. Considerably lightens green shades for outdoor exposures and is ideal for landscapes. Filter factor is approximately 3x.

Dark Yellow (15)

Very strong blue reduction. Primarily used in landscape photography with bright sun and deep shadows. It greatly enhances cloud reproduction and increases the depth of field. Filter factor is 4x.

Orange (22)

Absorbs blue almost completely as well as some green. Creates dramatic enhancement of clouds and reduces atmospheric haze. Especially useful at infinity with telephoto lenses. In portrait and figure photography it smoothes uneven skin tones and wrinkles, hides blemishes. Best portrait results are achieved with green lipstick. Filter factor is 4x

Light Red (25)

The ideal all around filter for the black & white photographer to create very strong contrast in blue sky and clouds, since it completely absorbs green and blue. Clouds are dramatically improved almost to the mood of a thunderstorm. It is more effective in cutting through haze, and moon light effects are easily achieved. Also suited for infrared photography. Filter factor is approximately 8x.

UV HAZE, ND and B&W FILTERS

Filter Size (mm)	30.5	37	39	40.5	46	48	49	52	55	58
UV Haze #HEUV()	20.80	21.50	27.50	27.95	23.95	27.95	23.95	24.50	27.50	28.50
UV Haze SH-PMC #HEUVSMC()	—	39.95	44.95	—	44.95	—	44.95	47.95	49.95	54.50
ND #HEND()()	20.80	21.50	27.50	27.95	23.95	27.95	23.95	24.50	27.50	28.50
Graduated ND #HEGND()()	—	—	—	—	—	—	57.95	57.95	62.50	66.95
Color Filters #HE()()	20.80	21.50	27.50	27.95	23.95	27.95	23.95	24.50	27.50	28.50
Filter Size (mm)	60	62	67	69	72	77	82	86	95	105
UV Haze #HEUV()	37.50	37.50	42.95	61.75	52.75	61.75	81.95	101.95	144.50	169.95
UV Haze SH-PMC #HEUVSMC()	—	59.95	71.50	99.95	89.95	99.95	126.95	138.50	186.50	—
ND #HEND()()	37.50	37.50	42.95	61.75	52.75	61.75	81.95	101.95	144.50	169.95
Graduated ND #HEGND()()	—	69.95	77.50	—	86.95	104.95	—	—	—	—
Color Filters #HE()()	37.50	37.50	42.95	61.75	52.75	61.75	81.95	101.95	144.50	169.95
Filter Size (mm)	Bay 1	Bay 2	Bay 3	Bay 4	Bay 6	Bay 8	Bay 50	Bay 60	Bay 70	Bay 104
UV Haze #HEUV()	—	—	54.95	—	138.95	—	93.95	113.50	—	—
UV Haze SH-PMC #HEUVSMC()	—	—	—	—	—	—	—	—	—	—
ND #HEND()()	—	—	54.95	—	138.95	—	93.95	113.50	—	—
Graduated ND #HEGND()()	—	—	—	—	—	—	—	145.95	—	—
Color Filters #HE()()	—	—	54.95	—	138.95	—	93.95	113.50	—	—

For color filters insert the color code in the first parenthesis, then the filter size in the second parenthesis. For Light Yellow insert (5), Medium Yellow (8), Yellow Green (11), Green (13), Dark Yellow (15), Orange (22) and Light Red (25). So for example, a 52mm Light Red would be HE2552.

For ND filters insert the ND strength (.3, .6 or .9) in the first parenthesis and then the filter size in the second parenthesis. Graduated ND filters are only available in .3 or .6. For example a 67mm ND 0.9 would be HEND.967, while a 58mm Graduated ND 0.6 would be HEGND.658

HELIOPAN

POLARIZER FILTERS

FILTERS

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Polarizing filters are color neutral and increase picture taking possibilities with black & white or color film. In color photography, unlike black & white, there is no possibility to change contrast or color saturation with colored filters. To do so would also change the colors in the photograph. Natural light spreads in a wave form in all direction. Sunlight is polarized and has a high color purity. When passing through the atmosphere a part of it is scattered which results in a bluish gray haze over all colors. This effect can be reduced or eliminated by using polarizing filters. If, in addition, light falls at a 35-40% angle on a reflecting surface (water, glass, plastic, color surfaces), the light



becomes reflected and polarized. If you properly orientate the filter, the reflections are absorbed and the true colors can reach the film. Water surfaces become transparent and clouds are more saturated. Heliopan polarizing filters consist of a neutral color foil cemented between two plane parallel glass discs. The foil is constructed so that light rays can only pass in only one plane. The polarizer is mounted in a calibrated rotating ring so the desired position and effect can be easily set. With an SLR camera one sees the results in the finder, with viewfinder type cameras one holds the polarizer in front of the eye and turns it to see the desired effects. Then with the assistance of the calibrated rim (on every Heliopan polarizer), it is easy to set the filter to the same position on the lens.



without Polarizer



with Polarizer

There are basically two kinds of polarizers: linear and circular. The circular is required with all autofocus cameras, using a linear polarizer will cause incorrect focusing measurements. The circular polarizer has a second component, a 1/4 wave plate in its construction. The polarized light is set in rotation by this plate and can therefore pass without interruption through the measuring system and give proper measurements.

For wide angle, Heliopan also offers a "slim" circular polarizing filter that will also work on lenses as short as 21mm without vignetting. Like all Heliopan polarizers, the rim is fully calibrated to indicate the axis of polarization and the convenient markings make the filters very easy to use on non reflex and non ground glass focusing cameras.

With the calibrations all that is necessary is to hold the filter up to the eye and rotate it until the desired effect is seen. Not the position of any number on the rim, mount the filter on the lens and rotate the mount till the selected number is in the same position as when the filter was held to the eye. As the new "slim" Heliopan circular polarizer has no front threads Heliopan will continue to offer their standard circular polarizer.

Linear Polarizer: For all manual viewfinder and SLR cameras

Circular Polarizer: For all SLR cameras with TTL metering via the mirror and/or autofocus lenses

Warm Polarizer: Warm polarizers are polarizing foils combined with a KR1.5 skylight filter. Especially suited for lenses that have cold tones.

Kasemann Linear Polarizer: These meet the highest quality standards. Has a special edge sealing for extreme climate conditions. Assures the highest optical performance, especially with long focal length lenses.

Kasemann Circular Polarizer: Same as above except for all SLR cameras with TTL metering via the mirror and/or autofocus lenses

Wide-Angle Polarizer: Especially made for wide angle lenses. The front thread size is increased to avoid vignetting.

SLIM Polarizers: Available in linear and circular versions, these filters have an extremely thin rim of only 5mm, eliminating the possibility of vignetting when using wide angle lenses or zoom lenses at their wide angle setting.

SH-PMC (Multicoated) Polarizers: SH-PMC filters are coated with 8 layers on each side. This not only reduces the reflections in the visible areas of the spectrum to almost 0% but it also repels moisture and dust. Provides the greatest protection against damage to the filter and is easier to clean than the lens itself.



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POLARIZER FILTERS

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POLARIZER FILTERS										
Filter Size (mm)	30.5	37	39	40.5	46	48	49	52	55	58
Linear Polarizer #HEP()	42.95	—	38.95	44.95	39.95	42.95	42.95	44.95	45.95	53.95
Circular Polarizer #HECP()	59.95	50.95	57.50	64.95	61.95	61.95	61.95	65.95	68.95	74.95
Circular Polarizer-SLIM #HECPS()	—	—	57.50	64.95	61.95	61.95	61.95	65.95	68.95	74.95
SH-PMC Circular Polarizer #HECPSMC()	—	82.95	87.50	73.95	91.95	93.50	93.50	94.50	106.95	112.95
SH-PMC Circular Polarizer-SLIM #HECPSMCS()	—	82.95	87.50	87.50	91.95	93.50	93.50	94.50	106.95	112.95
Kaemann Linear Polarizer #HEKP()	Call for availability and pricing									
Kaemann Linear Polarizer-W/A #HEKP()W	Call for availability and pricing									
Kaemann Circular Polarizer #HEKCP()	Call for availability and pricing									
Kaemann Circular Polarizer-W/A #HEKCP()WA	Call for availability and pricing									
Kaemann Warm Linear Polarizer #HEKWP()	Call for availability and pricing									
Kaemann Warm Circular Polarizer #HEKWCP()	Call for availability and pricing									
Filter Size (mm)	60	62	67	69	72	77	82	86	95	105
Linear Polarizer #HEP()	59.95	59.95	69.95	—	79.95	82.95	112.95	144.95	196.50	219.95
Circular Polarizer #HECP()	78.95	78.95	92.95	125.95	109.95	125.95	149.95	199.95	284.95	308.50
Circular Polarizer-SLIM #HECPS()	78.95	78.95	92.95	—	109.95	125.95	149.95	199.95	284.95	308.50
SH-PMC Circular Polarizer #HECPSMC()	122.95	122.95	139.95	177.95	154.95	177.95	197.95	254.95	299.95	—
SH-PMC Circular Polarizer-SLIM #HECPSMCS()	122.95	122.95	139.95	177.95	154.95	177.95	197.95	254.95	299.95	—
Kaemann Linear Polarizer #HEKP()	Call for availability and pricing									
Kaemann Linear Polarizer-W/A #HEKP()W	Call for availability and pricing									
Kaemann Circular Polarizer #HEKCP()	Call for availability and pricing									
Kaemann Circular Polarizer-W/A #HEKCP()WA	Call for availability and pricing									
Kaemann Warm Linear Polarizer #HEKWP()	Call for availability and pricing									
Kaemann Warm Circular Polarizer #HEKWCP()	Call for availability and pricing									
Filter Size (mm)	Bay 1	Bay 2	Bay 3	Bay 4	Bay 6	Bay 8	Bay 50	Bay 60	Bay 70	Bay 104
Linear Polarizer #HEP()	73.95	87.95	89.95	—	169.95	—	129.95	152.95	159.95	—
Circular Polarizer #HECP()	102.95	109.95	114.95	—	246.50	—	154.95	209.95	214.95	—
Circular Polarizer-SLIM #HECPS()	—	—	—	—	—	—	—	—	—	—
SH-PMC Circular Polarizer #HECPSMC()	—	—	—	—	224.95	—	—	189.95	239.95	—
SH-PMC Circular Polarizer-SLIM #HECPSMCS()	—	—	—	—	—	—	—	—	—	—
Kaemann Linear Polarizer #HEKP()	Call for availability and pricing									
Kaemann Linear Polarizer-W/A #HEKP()W	Call for availability and pricing									
Kaemann Circular Polarizer #HEKCP()	Call for availability and pricing									
Kaemann Circular Polarizer-W/A #HEKCP()WA	Call for availability and pricing									
Kaemann Warm Linear Polarizer #HEKWP()	Call for availability and pricing									
Kaemann Warm Circular Polarizer #HEKWCP()	Call for availability and pricing									

1. In the parenthesis insert the filter size. For example, a 67mm Circular Polarizer would be HECP67.

2. For Bay sizes insert just the letter B and the number. For example, Linear Polarizer in Bay 104 would be HEPB104.

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HELIOPAN

COLOR CONVERSION FILTERS

FILTERS

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The use of conversion filters lets you match the color temperature of the lighting to the film, or to modify the color balance at will. By the correct use of conversion filters, daylight films (approximately 5600K) can be balanced with artificial light and artificial light films (approximately 3200K) to daylight. KB filters increase the color temperature, KR filters reduce it.

KB 1.5 (82A): Often called a morning evening filter, this slightly blue filter removes the reddish yellow cast during morning and evening hours. Increases color temperature by 200K. Useful for wildlife photography.

KB 3 (82C): The KB 3 has a similar but stronger effect than the KB 1.5. It corrects the red cast from tungsten light when using type B film

KB 6 (80C): Medium blue violet filter increase color temp. by 1400K. It eliminates the strong red cast in morning and evening light, plus balances strong yellow and brown cast in some situations. Used in theater and stage photography.

KB12 (80B): This reversal filter converts daylight slide film to use 3400K lamps. (eg. photo floods or halogen lamps).

Filter Type	Filter Factor EV	Filter Factor LV	Change In Color Temperature Kelvin		Film Type	Change In Kelvin Temperature	Mired Value
KB 1.5	1x	-0	3000K	3200K	tungsten film type B	200K	-15
KB 3	1.5x	-0.7	2800K	3200K		400K	-30
KB 6	2.0x	-1.0	4100K	5500K	daylight film	1400K	-60
KB 9	2.5x	-1.3	3800K	5500K		1700K	-90
KB 12	3.0x	-1.7	3400K	5500K	daylight film	2100K	-120
KB 15	4.0x	-2.0	3200K	5500K		2300K	-150
KB 20	5.0x	-2.3	2800K	5500K		2700K	-200

KB 15 (80): For use with daylight film and 3200K tungsten lamps (60 to 100w)

KB 18: Increases the color temperature by approximately 2700K and can be used with candle light. Can also be used to achieve night effects during daylight.

COLOR CONVERSION FILTERS

Filter Size (mm)	30.5	37	39	40.5	46	48	49	52	55	58
Color Conversion #HE() ()	20.80	21.50	27.50	27.95	23.95	27.95	23.95	24.50	27.50	28.50
Filter Size (mm)	60	62	67	69	72	77	82	86	95	105
Color Conversion #HE() ()	37.50	37.50	42.50	61.75	52.75	61.75	81.95	101.95	144.50	169.95
Filter Size (mm)	Bay 1	Bay 2	Bay 3	Bay 4	Bay 6	Bay 8	Bay 50	Bay 60	Bay 70	Bay 104
Color Conversion #HE() ()	—	—	54.95	—	138.95	—	93.95	113.50	—	—

Insert the filter type (KB1.5, KB3, KB6, KB12, KB15, KB18 or KR1.5, KR3, KR6, KR12, KR15 or 81A, 81B 81C) in the first parenthesis, then the filter size in the second parenthesis.

KR 1.5 (Skylight): This light salmon colored filter reduces the bluish cast in scenic photography, snow scenes, or of normal objects around noon time. It absorbs UV radiation and serves as a protective filter which can be left on the lens at all times. The KR 1.5 is closer to Tiffen and Hoya's 81A filters. The Heliopan 81A filter may be too dark for some photographers preference's. No exposure compensation required.

KR 3 (81C) This slightly darker salmon colored filter has a stronger effect than the KR1.5. Especially useful in hazy sun light or cloudy overcast sky and at higher elevations.

KR 6 (81EF): Medium reddish filter ideal for photos with daylight color film in deep shadow with sunny illumination, or for interior architecture (churches) without additional illumination on cloudy days.

KR 12 (85): Reddish brown filter converts tungsten slide film to daylight

Filter Type	Filter Factor EV	Filter Factor LV	Change In Color Temperature Kelvin		Film Type	Change In Kelvin Temperature	Mired Value
KR 1.5	1x	-0	3400K	3200K	tungsten film type B	200K	15
KR 3	1.2x	-0.3	3600K	3200K		400K	30
KR 6	1.5x	-0.7	3900K	3200K		700K	60
KR 9	1.8x	-0.9	4500K	3200K		1300K	90
KR 12	2.0x	-1.0	5500K	3400K	type A	2100K	120
KR 15	2.3x	-1.3	5500K	3200K	tungsten film type B	2300	150
81 A	1.2x	-0.3	3400K	3200K		200K	20
81 B	1.2x	-0.3	3500K	320K		300K	27
81 C	1.3x	-0.3	3600K	3200		400K	35

KR 15 (85B): Reduces the color temperature by 2500K to balance daylight film to artificial light type B film.

81A, 81B and 81C These slightly brownish filters are similar to the KR 3. The correction however is brownish. Ideal for portrait and figure photography. the skin tones are more pleasingly reproduced, each one causes approximately a 100K change in the color correction. They allow for fine adjustment of light balance.



For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549

SPECIALTY FILTERS

F-Day

This is a fluorescent filter used to correct the green cast created when using daylight film under fluorescent lamps with daylight tubes. The filter restores the natural colors.

Close-up Lenses

Close-up lenses shorten the focal length at the same focus setting. No exposure correction is necessary. Lenses are available in three strengths and can be used in combination.

Soft Focus Filters

These filters have finely etched circular prismatic lines which create an effective soft mood at open aperture. Ideal for esthetic and artistic expressions. Available in two strengths "0" and "1". (May not work with AF systems).

Soft Spot

The soft spot with a plain ground spot in the center—all other surrounding details fade out in a blurred effect—will expand your artistic expression and create new moods. The degree of the blurred effect varies with lens focal length and aperture opening.

Cross Screen: Cross screen filters create star-like effects of spectral light sources. This is how it works: The light on the subject forms the stars. The stronger the light and the darker the background, the more dramatic is the star effect. Ideal for special-effects of spot lights at night, headlights in on-coming traffic, sun reflections or rippling water surfaces. Best results with long focal length lenses, open aperture and with the filter very close to the camera lens.

Zeiss Softars

The optimum in soft focus filters. In comparison with other diffusers, the Softars maintain a basic sharpness at any aperture for greater depth of field without changing softness. Long a requirement for the portrait photographer, Softars are available in two strengths and can be combined with each other.

Neutral Density Wide Angle Center Filters

Many wide angle lenses exhibit fall-off (darkening) at the edges. This can be improved with a center filter which has a progression from dark gray in the center to clear at the edges. Wide angle center filters are available in two densities: ND-0.45 (filter factor 3x, or +1.5 stops) and ND-0.9 (filter factor 8x, +3 stops).

F-DAY, CLOSE-UP, SOFT, SPOT, CROSS SCREEN & W/A CENTER FILTERS

Filter Size (mm)	30.5	37	39	40.5	46	48	49	52	55	58
F-Day	—	—	—	—	36.50	—	36.50	38.50	46.95	49.95
Close-up Lenses #HECU() ()	—	—	—	—	23.95	—	23.95	24.95	27.50	28.50
Soft Focus #HESF0() or #HESF1()	—	—	—	—	36.50	—	36.50	38.50	46.95	49.50
Spot Lens #HESS()	—	—	—	—	47.95	—	47.95	48.95	54.95	59.95
Zeiss Softar #HEZS1() or #HEZS2()	—	—	—	—	—	—	209.95	219.95	229.95	229.95
Cross Screen	—	—	—	—	43.50	—	43.50	43.50	45.95	49.95
ND Wide Angle Center Filter #HECF3()	—	—	—	—	—	—	192.50	339.95	339.95	339.95
Filter Size (mm)	60	62	67	69	72	77	82	86	95	105
F-Day	56.95	56.95	68.50	—	79.95	104.95	—	—	—	—
Close-up Lenses #HECU() ()	—	37.50	42.95	—	52.75	61.75	—	—	—	—
Soft Focus #HESF0() or #HESF1()	56.95	56.95	68.50	—	79.95	104.95	—	—	—	—
Spot Lens #HESS()	—	62.50	73.50	—	79.95	89.95	—	—	—	—
Zeiss Softar #HEZS1() or #HEZS2()	—	234.95	249.95	—	249.95	294.95	—	—	—	—
Cross Screen	—	56.95	62.95	—	75.95	94.95	119.95	—	—	—
ND Wide Angle Center Filter #HECF3()	—	—	287.95	—	—	364.95	379.95	—	—	—
Filter Size (mm)	Bay 1	Bay 2	Bay 3	Bay 4	Bay 6	Bay 8	Bay 50	Bay 60	Bay 70	Bay 104
F-Day	Call for availability and pricing									
Close-up Lenses #HECU() ()	Call for availability and pricing									
Soft Focus #HESF0() or #HESF1()	Call for availability and pricing									
Spot Lens #HESS()	Call for availability and pricing									
Zeiss Softar #HEZS1() or #HEZS2()	Call for availability and pricing									
Cross Screen	Call for availability and pricing									
ND Wide Angle Center Filter #HECF3()	Call for availability and pricing									

For close-up lenses insert the strength in the first parenthesis (1, 2 or 3), then the filter size in the second parenthesis. For all other filters simply insert the filter size.