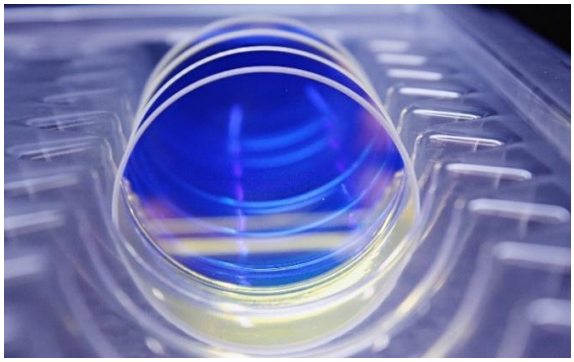
Bandpass 540-80 HT

Schneider-Kreuznach magnetron sputtered industrial bandpass filters impress with steep slopes and high transmission at stable cut-on and cut-off wavelengths. The very flat surface makes them ideal for high end inspection systems.
Schneider-Kreuznach bandpass filters are RoHS conform. Custom sizes are available on request.



Key features

- Average transmittance 95%
- Steep slopes
- Wavelength tolerance +/- 1%
- Deep blocking / High optical density

Applications

- Automation
- 3D Measurement
- Food and beverage inspection
- Ophtalmology
- Microscopy
- Robotics

Standard Products

Name	Description
BP 465-70 HT	Bandpass 430 - 500 nm
BP 540-80 HT	Bandpass 495 - 580 nm
BP 540-300 HT	UV/IR Cut 390 - 690 nm
BP 575-170 HT	Bandpass 495 - 660 nm
BP 590-50 HT	Bandpass 565 - 615 nm
BP 635-50 HT	Bandpass 610 - 660 nm
BP 660-60 HT	Bandpass 630 - 690 nm
BP 850-80 HT	Bandpass 810 - 890 nm
BP 865-100 HT	Bandpass 815 - 915 nm

available on request

Name	Description
BP 490-180 HT	Bandpass 400 - 580 nm
BP 515-270 HT	UV/IR Cut 380 - 650 nm
BP 520-280 HT	UV/IR Cut 380 - 660 nm
VIS-85 HT	400 - 650 nm & 800 - 900 nm
BP 590-200 HT	Bandpass 595 - 690 nm
BP 640-100 HT	Bandpass 590 - 590 nm
BP 680-100 HT	Bandpass 630 - 730 nm

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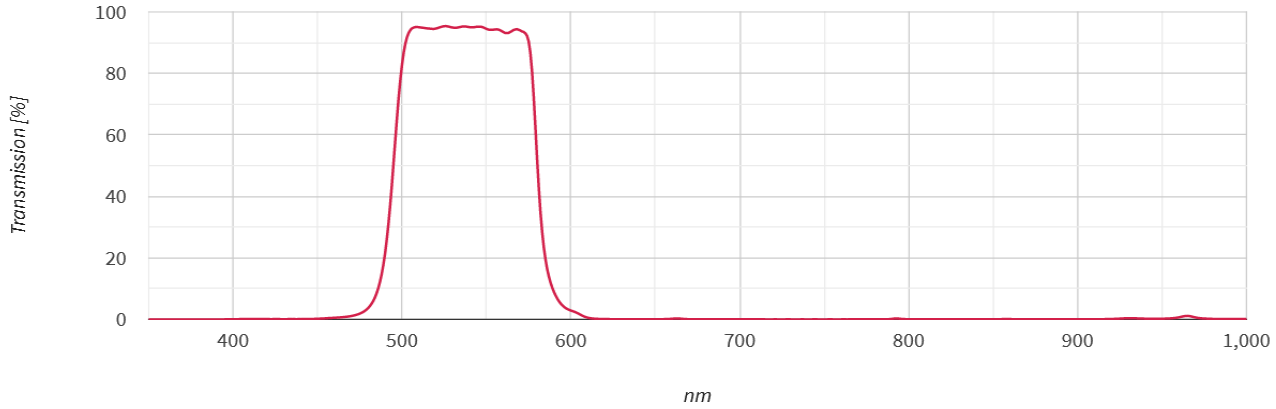
Bandpass 540-80 HT



Technical specifications	according to ISO 10110
Angle of incident	0° +/- 8°
Cut-on wavelength	495 +/- 5 nm
Cut-off wavelength	580 +/- 6 nm
Transmittance	515 - 565 nm: T_{abs} > 90%
Blocking	< 450 nm: T_{abs} < 0.5%
	615 - 950 nm: T_{abs} < 1.0%
	950 - 1100 nm: T_{abs} < 2.0%
Wavefront distortion	Ø >18 - 30 mm: 13/ 1(0.25) | Ø >30 - 50 mm: 13/ 1(0.30)
Parallelism	1'
Glass thickness tolerance	+/- 0.08mm

Mounted Industrial Filter [IF]			Unmounted Industrial Filterglass [IFG]		
Mount	Thickness	ID	Diameter	Thickness	ID
CMT	2mm	1084907	22.0 mm	2mm	1099704
CMT	1mm	*ID to be defined*	22.0 mm	1mm	*ID to be defined*
SH 25.5	2mm	1085703	23.0 mm	2mm	*ID to be defined*
SH 25.5	1mm	*On request only*	23.0 mm	1mm	*On request only*
SH 27.0	2mm	1085186	24.0 mm	2mm	*ID to be defined*
SH 27.0	1mm	*On request only*	24.0 mm	1mm	*On request only*
SN1 30.5	2mm	1085645	29.0 mm	2mm	*ID to be defined*
SN1 30.5	1mm	*On request only*	29.0 mm	1mm	*On request only*
SH 34.0	2mm	1106682	31.0 mm	2mm	*ID to be defined*
SH 34.0	1mm	*On request only*	31.0 mm	1mm	*On request only*
SH 35.5	2mm	1088049	33.0 mm	2mm	*ID to be defined*
SH 35.5	1mm	*On request only*	33.0 mm	1mm	*On request only*
SH 37.0	2mm	1085385	34.0 mm	2mm	1082572
SH 37.0	1mm	*On request only*	34.0 mm	1mm	*ID to be defined*
SH 39.0	2mm	1098137	36.0 mm	2mm	*ID to be defined*
SH 40.5	2mm	1085704	38.0 mm	2mm	*ID to be defined*
SH 43.0	2mm	1085705	40.0 mm	2mm	*ID to be defined*
SH 46.0	2mm	1086645	43.0 mm	2mm	1082573
SH 49.0	2mm	1095223	46.0 mm	2mm	*ID to be defined*

Custom sizes available on request.

Order Nomenclature	
IF BP 540-80 HT [Mount] [Thickness]	IFG BP 540-80 HT [Diameter] [Thickness]
Example: IF BP 540-80 HT SH 25.5 2	*Example: IFG BP 540-80 HT 23.0 2*

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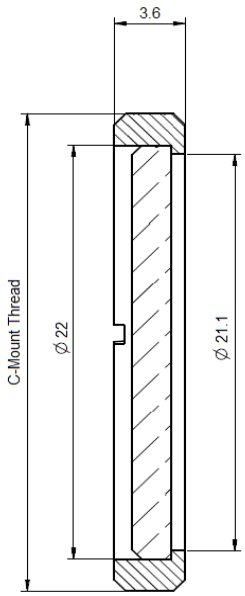
Mounts

C-Mount

Defined by 1" (25.4mm) diameter and 32 turns per inch pitch, the C-Mount thread is a popular camera mount in machine vision industry. Schneider-Kreuznach offers a CMT mount option for most filters. So filters fit in any C-Mount based mechanics, including the C-Mount thread of a camera. The extension of the back flange distance has to be considered for imaging applications.

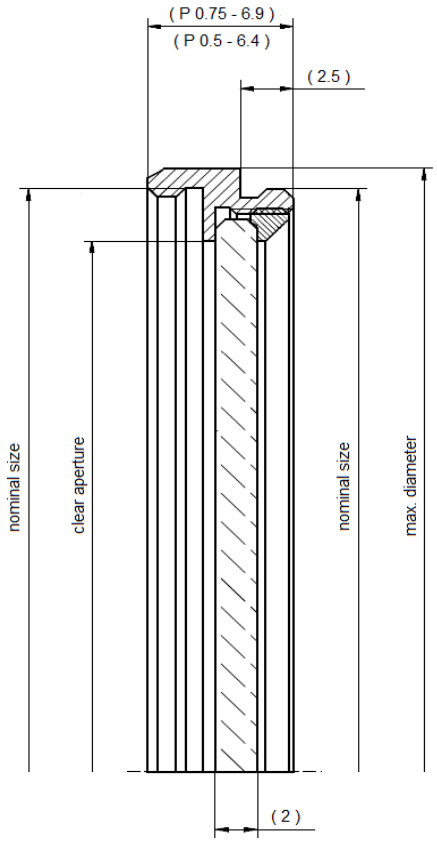


Key features	Applications
• Fits in C-Mount cameras • Robust • Black anodized brass	• Mounted in C-Mount camera threads • In vision systems based on C-Mount mechanics

Thread	Diameter	Clear Aperture	Thickness
1'' - 32	25.4 mm	21.1 mm	3.6 mm

SH-Mount

SH-Mount is the standard thread mount when high flexibility and stability is required. The filter glass is hold in place by a retainer ring. SH-Mounts are extremely robust, have a female and male M-thread and can be stacked if several filters must be combined.



Key features	Applications
• Stackable • Robust • Black anodized brass	• Mounted on lenses • Mounted on measurement instruments

Thread	Diameter	Clear Aperture	Thickness
M 25.5x0.5	27.0 mm	20.8mm	6.4 mm
M 27.0x0.5	28.5 mm	21.8 mm	6.4 mm
M 34.0x0.5	36.0 mm	28.8 mm	6.4 mm
M 35.5x0.5	37.0 mm	30.8 mm	6.4 mm
M 37.0x0.75	39.0 mm	31.8 mm	6.9 mm
M 39.0x0.5	40.5 mm	33.8 mm	6.4 mm
M 40.5x0.5	42.0 mm	35.8 mm	6.4 mm
M 43.0x0.75	45.0 mm	37.8 mm	6.9 mm
M 46.0x0.75	48.0 mm	40.8 mm	6.9 mm
M 49.0x0.75	51.0 mm	43.8 mm	6.9 mm
M 52.0x0.75	54.0 mm	46.8 mm	6.9 mm
M 55.0x0.75	57.0 mm	49.8 mm	6.9 mm
M 58.0x0.75	60.0 mm	52.8 mm	6.9 mm
M 62.0x0.75	64.5 mm	56.8 mm	6.9 mm
M 67.0x0.75	69.5 mm	61.8 mm	6.9 mm

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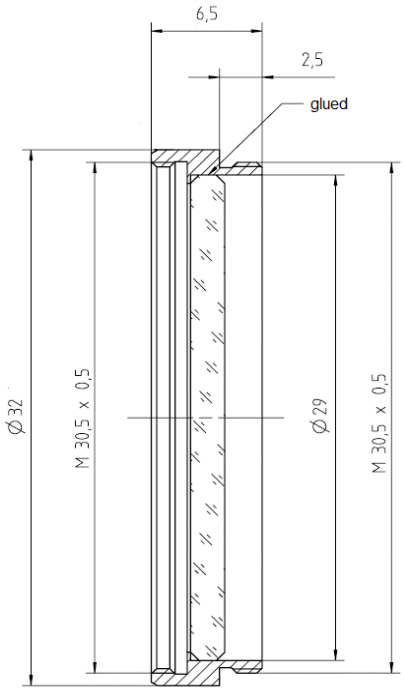
Mounts

SN1-Mount

The SN1-Mount was designed for the popular M30.5x0.5 thread. With its high clear aperture, vignetting can be avoided even for wide angle applications. The filter is glued into the mount. So it is secured against vibrations when integrated into robots or production lines. It is ideal to be used in automated fabrication. SN1-Mounts have a male and female M-thread and can be stacked if several filters must be combined.



Key features	Applications
• Maximum clear aperture • No vignetting • Stackable • Robust • Black anodized brass	• Mounted on lenses • Mounted on measurement instruments

Thread	Diameter	Clear Aperture	Thickness
M 30.5x0.5	32 mm	28 mm	6.5 mm

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