

# Narrow Bandpass 450-40 HT



Schneider-Kreuznach magnetron sputtered industrial narrow bandpass filters feature steep slopes for sophisticated applications that require a sharp transition between high transmission and deep blocking at stable cut-on and cut-off wavelengths. The layers are applied by means of magnetron sputtering, a special coating process.

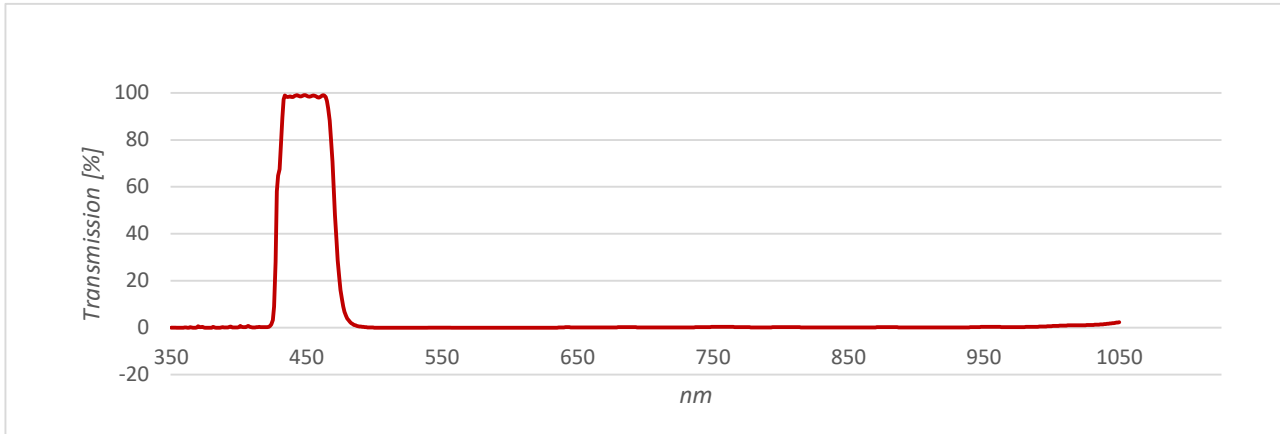
Schneider-Kreuznach narrow bandpass filters are RoHS conform. Custom sizes are available on request.



Key features	Applications
<ul style="list-style-type: none"> <li>• Average transmittance 90%</li> <li>• Steep slopes</li> <li>• Wavelength tolerance +/- 3nm</li> <li>• Deep blocking / High optical density</li> </ul>	<ul style="list-style-type: none"> <li>• Laser applications</li> <li>• 3D Measurement and Metrology</li> <li>• Food and beverage inspection</li> <li>• Ophthalmology</li> <li>• Microscopy</li> </ul>

Standard Products		available on request	
Name	Description	Name	Description
NBP 450-40 HT	Narrow Bandpass 430 - 470 nm	NBP 405-15 HT	Narrow Bandpass 398 - 413 nm
NBP 635-20 HT	Narrow Bandpass 625 - 645 nm	NBP 457-20 HT	Narrow Bandpass 447 - 467 nm
NBP 660-10 HT	Narrow Bandpass 655 - 665 nm	NBP 488-20 HT	Narrow Bandpass 478 - 498 nm
		NBP 532-20 HT	Narrow Bandpass 522 - 542 nm
		NBP 810-45 HT	Narrow Bandpass 788 - 833 nm
		NBP 830-20 HT	Narrow Bandpass 820 - 840 nm

# Narrow Bandpass 450-40 HT



Technical specifications	according to ISO 10110
Angle of incident	0° +/- 8°
Central Wavelength (CWL)	450 +/- 3nm
Full Width at Half Maximum (FWHM)	40 +/- 1nm
Transmittance	433 - 466 nm: $T_{abs} > 90\%$ < 420 nm: $T_{abs} < 0.5\%$
Blocking	490 - 990 nm: $T_{abs} < 0.5\%$
Wavefront distortion	$\varnothing > 18 - 30$ mm: 13/ 1(0.25)   $\varnothing > 30 - 50$ 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	1107304	22.0 mm	2mm	ID to be defined
CMT	1mm	ID to be defined	22.0 mm	1mm	ID to be defined
SH 25.5	2mm	1107305	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	1107306	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	1107307	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	1107308	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	1107309	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	1107310	34.0 mm	2mm	1106818
SH 37.0	1mm	On request only	34.0 mm	1mm	ID to be defined
SH 39.0	2mm	1107311	36.0 mm	2mm	ID to be defined
SH 40.5	2mm	1107312	38.0 mm	2mm	ID to be defined
SH 43.0	2mm	1107313	40.0 mm	2mm	ID to be defined
SH 46.0	2mm	1107314	43.0 mm	2mm	1107241
SH 49.0	2mm	1107315	46.0 mm	2mm	1107098

Custom sizes available on request.

Order nomenclature	
IF NBP 450-40 HT [Mount] [Thickness] Example: IF NBP 450-40 HT SH 25.5 2	IFG NBP 450-40 HT [Diameter] [Thickness] Example: IFG BP 450-40 HT 34.0 2

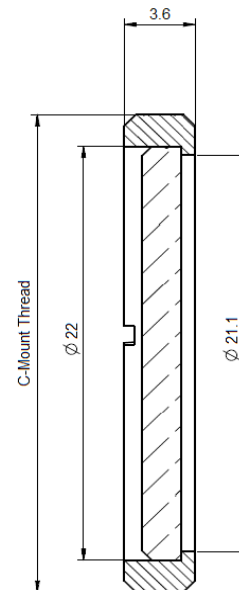
## C-Mount

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
--------------	--------------

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Fits in C-Mount cameras</li> <li>• Robust</li> <li>• Black anodized brass</li> </ul> | <ul style="list-style-type: none"> <li>• Mounted in C-Mount camera threads</li> <li>• In vision systems based on C-Mount mechanics</li> </ul> |
|---|---|

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



## SH-Mount

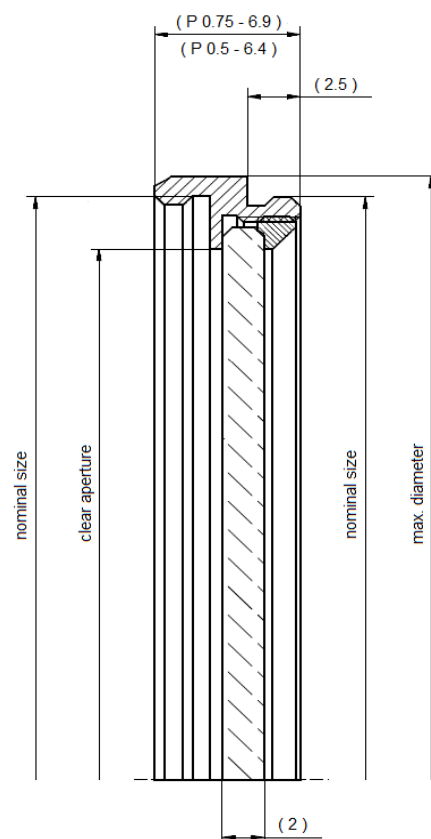
SH-Mount is the standard thread mount when high flexibility and stability is required. The filter glass is held in place by a retainer ring. SH-Mounts are extremely robust, have a female and male M-thread and can be stacked if several filters must be combined.

Key features	Applications
--------------	--------------

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Stackable</li> <li>• Robust</li> <li>• Black anodized brass</li> </ul> | <ul style="list-style-type: none"> <li>• Mounted on lenses</li> <li>• Mounted on measurement instruments</li> </ul> |
|---|---|

Thread	Diameter	Clear Aperture	Thickness
M 25.5x0.5	29.5 mm	20.8mm	6.4 mm
M 27.0x0.5	31.0 mm	21.8 mm	6.4 mm
M 35.5x0.5	39.5 mm	29.8 mm	6.4 mm
M 37.0x0.75	41.0 mm	31.8 mm	6.9 mm
M 39.0x0.5	43.0 mm	33.8 mm	6.4 mm
M 40.5x0.5	44.5 mm	35.8 mm	6.4 mm
M 43.0x0.75	47.0 mm	37.8 mm	6.9 mm
M 46.0x0.75	50.0 mm	40.8 mm	6.9 mm
M 49.0x0.75	53.0 mm	43.8 mm	6.9 mm
M 52.0x0.75	56.0 mm	46.8 mm	6.9 mm
M 55.0x0.75	59.0 mm	49.8 mm	6.9 mm
M 58.0x0.75	62.0 mm	52.8 mm	6.9 mm
M 62.0x0.75	66.0 mm	56.8 mm	6.9 mm
M 67.0x0.75	71.0 mm	61.8 mm	6.9 mm

UV/IR Cut 380 - 650 nm

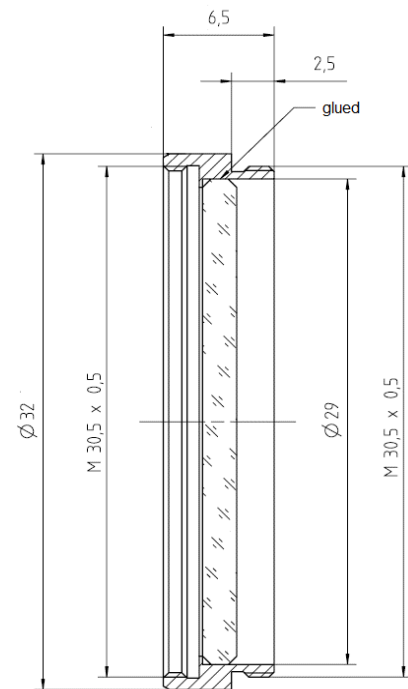


## SN1-Mount

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
<ul style="list-style-type: none"> <li>• Maximum clear aperture</li> <li>• No vignetting</li> <li>• Stackable</li> <li>• Robust</li> <li>• Black anodized brass</li> </ul>	<ul style="list-style-type: none"> <li>• Mounted on lenses</li> <li>• Mounted on measurement instruments</li> </ul>

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



## Headquarters Europe

Jos. Schneider Optische Werke GmbH  
Ringstraße 132  
55543 Bad Kreuznach  
+49 671 601 205  
isales@schneiderkreuznach.com  
www.schneiderkreuznach.com

## Offices Worldwide

### America

+1 800 645 7239 (East Coast)  
+1 800 228 1254 (West Coast)  
info@schneideroptics.com

### Asia

+86 755 8832 1170  
info@schneider-asiapacific.com