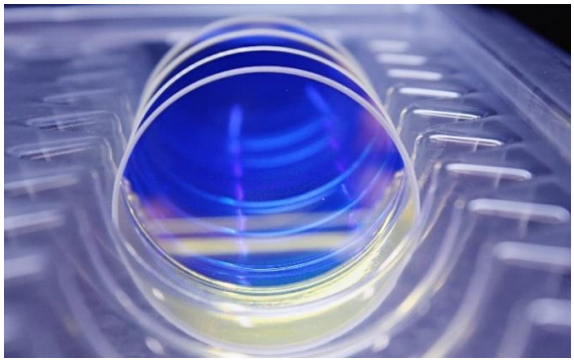
# Bandpass 575-170 HT

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 | | available on request | |
|---|---|---|---|
| Name | Description | Name | Description |
| BP 465-70 HT | Bandpass 430 - 500 nm | BP 490-180 HT | Bandpass 400 - 580 nm |
| BP 540-80 HT | Bandpass 495 - 580 nm | BP 515-270 HT | UV/IR Cut 380 - 650 nm |
| BP 540-300 HT | UV/IR Cut 390 - 690 nm | BP 520-280 HT | UV/IR Cut 380 - 660 nm |
| BP 575-170 HT | Bandpass 495 - 660 nm | VIS-85 HT | 400 - 650 nm & 800 - 900 nm |
| BP 590-50 HT | Bandpass 565 - 615 nm | BP 590-200 HT | Bandpass 595 - 690 nm |
| BP 635-50 HT | Bandpass 610 - 660 nm | BP 640-100 HT | Bandpass 590 - 590 nm |
| BP 660-60 HT | Bandpass 630 - 690 nm | BP 680-100 HT | Bandpass 630 - 730 nm |
| BP 850-80 HT | Bandpass 810 - 890 nm | | |
| BP 865-100 HT | Bandpass 815 - 915 nm | | |

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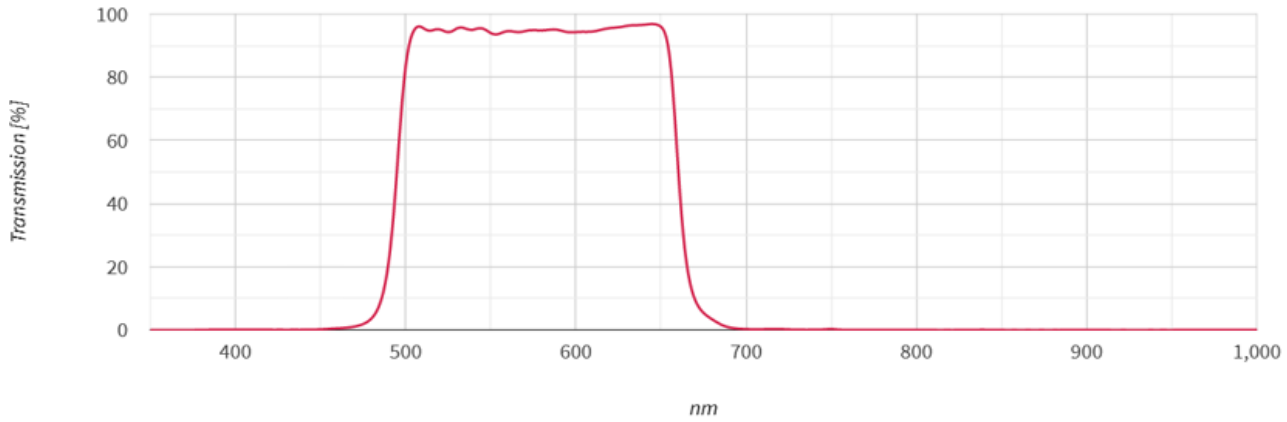


| Technical specifications | according to ISO 10110 |
|---|---|
| Angle of incident | 0° +/- 8° |
| Cut-on wavelength | 495 +/- 5 nm |
| Cut-off wavelength | 660 +/- 7 nm |
| Transmittance | 515 - 640 nm: $T_{abs}$ > 90% |
| Blocking | < 450 nm: $T_{abs}$ < 0.5% |
| | 710 - 1050 nm: $T_{abs}$ < 1.0% |
| 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 | 1085678 | 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 | 1085451 | 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 | 1090034 | 24.0 mm | 2mm | *ID to be defined* |
| SH 27.0 | 1mm | 1101325 | 24.0 mm | 1mm | *On request only* |
| SN1 30.5 | 2mm | 1085647 | 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 | 1106689 | 31.0 mm | 2mm | *ID to be defined* |
| SH 34.0 | 1mm | *On request only* | 31.0 mm | 1mm | 1101321 |
| SH 35.5 | 2mm | 1088010 | 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 | 1092598 | 34.0 mm | 2mm | 1082545 |
| SH 37.0 | 1mm | *On request only* | 34.0 mm | 1mm | *On request only* |
| SH 39.0 | 2mm | 1106690 | 36.0 mm | 2mm | *ID to be defined* |
| SH 40.5 | 2mm | 1106691 | 38.0 mm | 2mm | *ID to be defined* |
| SH 43.0 | 2mm | 1106692 | 40.0 mm | 2mm | *ID to be defined* |
| SH 46.0 | 2mm | 1086646 | 43.0 mm | 2mm | 1082546 |
| SH 49.0 | 2mm | 1086647 | 46.0 mm | 2mm | *ID to be defined* |

Custom sizes available on request.

| Order Nomenclature | |
|---|---|
| IF BP 575-170 HT [Mount] [Thickness] | IFG BP 575-170 HT [Diameter] [Thickness] |
| *Example: IF BP 575-170 HT SH 25.5 2* | *Example: IFG BP 575-170 HT 23.0 2* |

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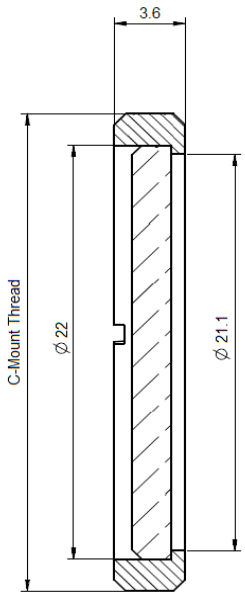
# Mounts

## 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.

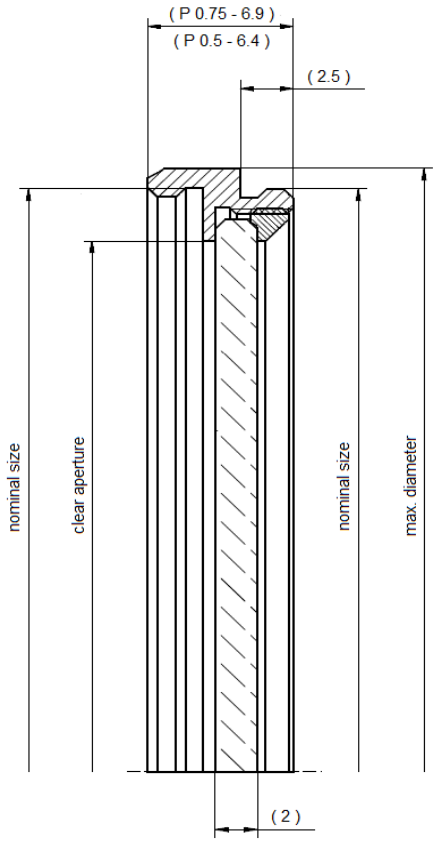



| Key features | Applications |
|---|---|
| • Fits in C-Mount cameras<br>• Robust<br>• Black anodized brass | • Mounted in C-Mount camera threads<br>• In vision systems based on C-Mount mechanics |

| 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<br>• Robust<br>• Black anodized brass | • Mounted on lenses<br>• 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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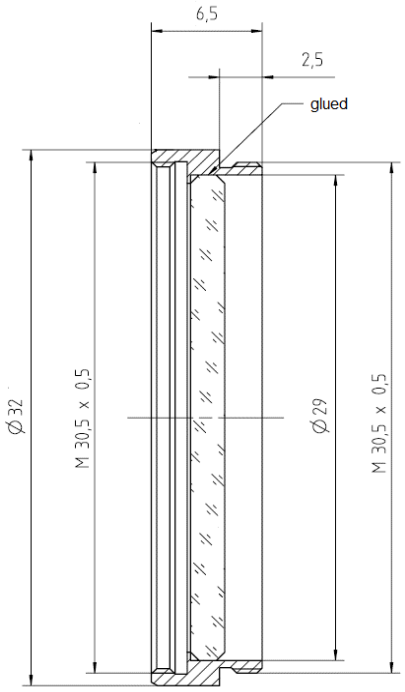
# Mounts

## 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<br>• No vignetting<br>• Stackable<br>• Robust<br>• Black anodized brass | • Mounted on lenses<br>• Mounted on measurement instruments |

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

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# Contact

## 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

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