Neutral Density ND 1.8

ND filters reduce evenly the transmittance of light over the entire VIS spectrum. They decrease the brightness of an image without changing the depth of field (DoF). They attenuate light by absorbing a part of the energy of the VIS wavelength, without influence on the color balance. ND filters are used to control the intensity of light going through an optical system to avoid overexposure, blooming on imaging sensors and prevent damages on light sensitive measuring sensors.



Key features

Applications

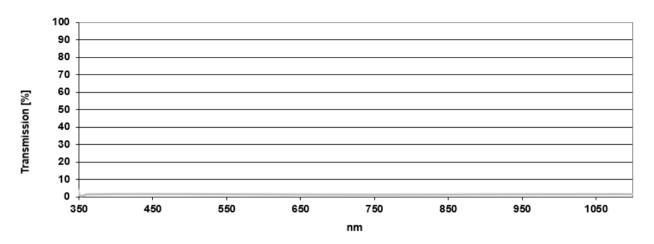
- Insensitive to angle of incidence
- Decrease brightness without changing DoF
- Stackable, combine ND-filters to achieve OD
- Even attenuate avoid effects on color balance
- Welding
- Measuring Instruments
- R&D
- Laser Measurement

Standard Products		available on request	
Name	Description	Name	Description
ND 0.6	OD 0.6	112 102	OD 0.6
ND 0.9	OD 0.9	ND 103	OD 0.9
ND 1.8	OD 1.8	ND 106	OD 1.8
ND 3.0	OD 3.0		OD 3.0

Schneider Kreuznach

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Neutral Density ND 1.8



Technical specifications	according to ISO 10110
Optical density	1.8
Transmittance average	1.6 %
Glass thickness	1.3 +/- 0.2 mm

Mounted Industrial Filter [IF]		Unmounted Industrial Filterglass [IFG]			
Mount	Thickness	ID	Diameter	Thickness	ID
CMT	1.3mm	ID to be defined	22.0 mm	1.3mm	ID to be defined
SH 25.5	1.3mm	1105510	23.0 mm	1.3mm	ID to be defined
SH 27.0	1.3mm	1107149	24.0 mm	1.3mm	ID to be defined
SN1 30.5	1.3mm	ID to be defined	29.0 mm	1.3mm	ID to be defined
SH 34.0	1.3mm	1107150	31.0 mm	1.3mm	ID to be defined
SH 35.5	1.3mm	1107151	33.0 mm	1.3mm	1088977
SH 37.0	1.3mm	1107152	34.0 mm	1.3mm	1089307
SH 39.0	1.3mm	1107153	36.0 mm	1.3mm	1088978
SH 40.5	1.3mm	1105511	38.0 mm	1.3mm	1088979
SH 43.0	1.3mm	1107154	40.0 mm	1.3mm	1088980
SH 46.0	1.3mm	1107155	43.0 mm	1.3mm	1088981
SH 49.0	1.3mm	1107156	46.0 mm	1.3mm	1088982

Custom sizes available on request.

Order nomenclature IF 806 [Mount] [Thickness] *Example: IF 806 SH 25.5 1.3*

IFG 806 [Diameter] [Thickness] Example: IFG 806 23.0 1.3



Mounts



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
- Mounted on lenses

5<u>6.8 mm</u>

61.8 mm

• Robust

M 62.0x0.75

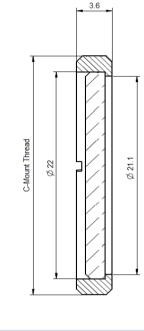
M 67.0x0.75

• Mounted on measurement

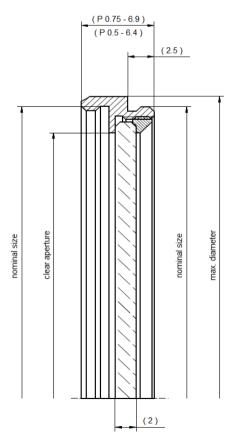
Black anodized brass		instruments	inicadaromor	
	Thread	Diameter	Clear Aperture	Thickness
	M 25.5x0.5	29.5 mm	20.8mm	6.4 mm
	M 27.0x0.5	31.0 mm	21.8 mm	6.4 mm
	M 35.5x0.5	39.5 mm	29.8 mm	6.4 mm
	M 37.0x0.75	41.0 mm	31.8 mm	6.9 mm
	M 39.0x0.5	43.0 mm	33.8 mm	6.4 mm
	M 40.5x0.5	44.5 mm	35.8 mm	6.4 mm
	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

66.0 mm

71.0 mm



UV/IR Cut 380 - 650 nm



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6.9 mm

6.9 mm



Mounts



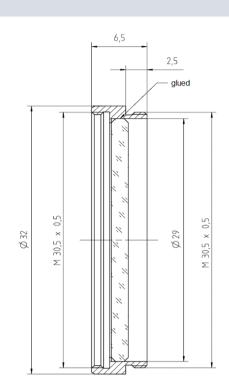
SN1-Mount

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 Mthread and can be stacked if several filters must be combined.

Key features	Applications

- Maximum clear aperture Mounted on lenses
- No vignetting
- Stackable
- Robust
- Mounted on measurement instruments
- Black anodized brass

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