

[All Products](#) / [Optics](#) / [SCHOTT Optics](#)
/ [SCHOTT NG Gray Glass Neutral Density Filters](#)

[See all 36 Products in Family](#)

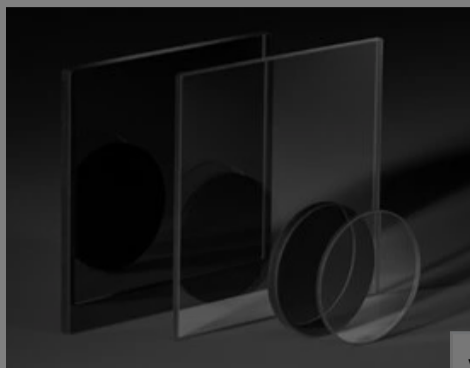
SCHOTT NG4, 25mm

See More by [SCHOTT Optical Components](#)

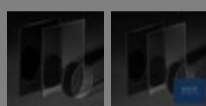
Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region: European Union

Submit



SCHOTT NG Gray Glass Neutral Density (ND) Filters



Stock #14-091 **12 In Stock**

1

€44⁵⁰

ADD TO CART

Volume Pricing	
Qty 1-10	€44,50 each
Qty 11-49	€38,50 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:step	Curve:pdf
PDF Drawing:pdf	IGES:igs
eDrawing:eprt	
EO Spec Sheet	Download All

General

Type: Neutral Density Filter

Physical & Mechanical Properties

Diameter (mm): 25.00

Thickness (mm): 3.00 ±0.2

Parallelism (arcmin): ≤3

Dimensional Tolerance (mm): ±0.2

Optical Properties

Optical Density OD (Average): 1.58

Glass/Filter Number: **SCHOTT NG4**

Coating: Uncoated

Index of Refraction (n_d): 1.51

Surface Quality: 60-40

Transmission (%): 2.6

Transmission Tolerance (%): (nominal)

Optical Density Tolerance (%): (nominal)

Material Properties

Transformation Temperature (°C): 483

Regulatory Compliance

Product Details

Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:

- Tightly Controlled Thickness Specifications
- Standard Thicknesses of 1, 2, and 3mm
- Even Light Attenuation in the Visible Spectrum
- NG1, NG3, NG4, NG5, NG9 and NG11 Glass Types Available
- **Precision SCHOTT NG Glass Filters** Also Available

SCHOTT NG Gray Glass Neutral Density (ND) Filters feature nearly constant transmittance in the visible spectrum, attenuating light through absorption. The filters are available in 6 materials, each with a thickness of 1, 2, or 3mm. Filters can be stacked to achieve custom optical densities. SCHOTT NG Gray Glass Neutral Density (ND) Filters are used in a variety of machine vision, **factory automation**, and analytical instrumentation applications. Custom sizes from 5 to 160mm are available upon request; for more information, visit our **Colored Glass Filter Manufacturing** capabilities webpage. **SCHOTT NG Absorptive Neutral Density (ND) Filters** with precision optical density and transmission values are also available.

While SCHOTT NG Gray Glass Neutral Density (ND) Filters will provide consistent transmission values from 400 - 700nm, variations in filter lot manufacturing may lead to variations in transmission from filter to filter. Please see the table in the Technical Information tab for acceptable transmission variations for each glass type and thickness.

Filter Simulation Software

[Click here](#) to download SCHOTT's colored glass filter calculation program which can be used to calculate the internal transmittance and external transmission of each SCHOTT glass type. The program can simulate the performance of individual filters with user specified thickness or of stacked filters with varying glass types and thicknesses.

Interactive transmission curves are also available [here](#).

Immediate Custom Quotes Available

If you have a need for any round, square, or rectangular size of a SCHOTT NG Gray Glass Neutral Density (ND) Filter in dimensions between 5mm and 50mm, please visit our **Colored Filter Glass Tool**. We'll provide an immediate quote, and can deliver the part to your requested size in approximately 2 weeks. A full list of standard manufacturing tolerances and restrictions are listed. For fully customized filters to your requirements, visit our **Customized Optical Filter Glass Capabilities** page.

Technical Information

Glass Type	Thickness	Min. Transmission (%)	Max. Transmission (%)
NG3	1	7.4	11.1
	2	0.01	2.8
	3	0.01	1.9
NG4	1	24.9	31.3
	2	6.1	11.6
	3	0.01	5.5
NG5	1	49.8	55.4
	2	27.2	32.8
	3	14.3	19.9
NG9	1	1.8	5.5
	2	0.01	2.0
	3	0.01	1.8
NG11	1	70.1	73.8
	2	54.2	57.9
	3	42.2	45.9

Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:

PLEASE ENTER YOUR REGIONAL SPECIFICATIONS HERE

Glass Type ⓘ

BG

Filter Number

Thickness (mm) ⓘ

Shape ⓘ

Diameter (mm) ⓘ

0

Length (mm) ⓘ

0

Width (mm) ⓘ

0

Quantity

0

GET PRICING

TYPICAL 3-4 WEEK DELIVERY. DELIVERY DATE TO BE CONFIRMED AT TIME OF ORDER.

Standard Manufacturing Tolerances:

Edge length and diameter	+/-0.2 mm
Thickness	For ≤ 1mm: ± 0.1mm For > 1 – 3mm: ± 0.2mm
Surface Quality	60 – 40
Surface Accuracy	≤8 Waves
Parallelism	≤3 arcmin
Clear Aperture	≥90%
Edges & Bevels	Round parts ≥ ø5mm: polished edges & protective bevel Square & rectangular parts < 50 x 50mm: polished edges, no bevel
Edge Chips	For ≤ ø80mm: < 0.3mm (5/E0.3), for ≥ ø81mm < 0.6mm (5/E0.6)

Surface quality according to DIN ISO 10110:

Polishing quality	P2
Defects	5/3 x 0.63
All edges machined	
Round filters with chamfer max. 0.5mm, square and rectangular < 50x50mm without chamfer	

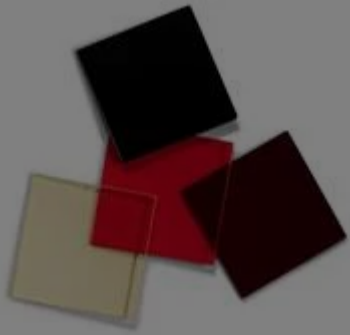
GG	Nearly colorless to yellow glasses, IR transmitting
KG	Virtually colorless glasses with high transmission in the visible and absorption in the IR
NG	Neutral density glasses with uniform attenuation in the visible range
OG	Orange glasses, IR transmitting
RG	Red and black glasses, blocking visible, IR transmitting
UG	Black and blue glasses, UV transmitting
VG	Green glasses
WG	Colorless glasses with different cut-offs in the UV, transmitting in the visible and IR ranges

Note: The spectral curves above show the internal transmittance of the individual optical filter glasses

ADDITIONAL CAPABILITIES

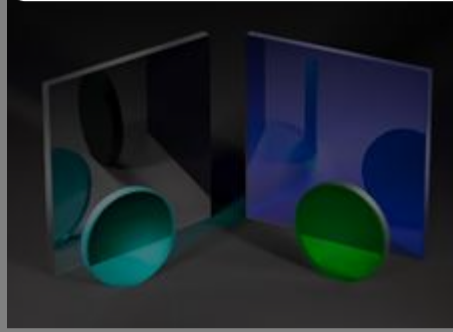
Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:



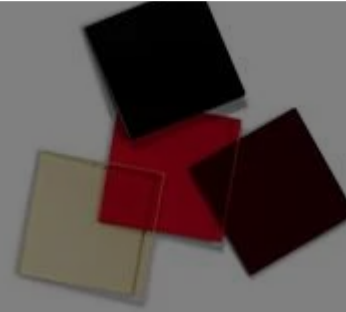
#32-752 - SCHOTT GG-435,
25.4mm Dia., 3mm Thick, Colored
Glass Longpass Filter
€46,00

Qty



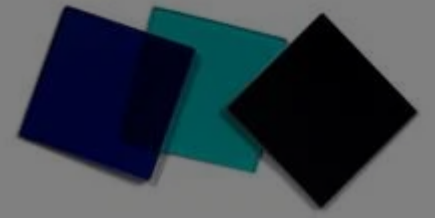
#34-447 - Hoya G533 (VIS) 12mm
Dia., Colored Glass Bandpass Filter
€53,00

Qty



#45-068 - SCHOTT GG-455,
25.4mm Dia., 3mm Thick, Colored
Glass Longpass Filter
€33,00

Qty





















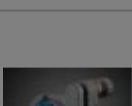



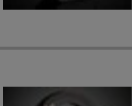



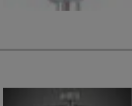

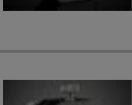



#46-051 - SCHOTT BG18, 25.4mm
Dia., 3mm Thick, Colored Glass
Bandpass Filter
€59,00

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
	25.0/25.4mm Optic Dia., SM1 Thin Mount, M4	Fixed		#13-787	€21,00 Request Quote	4 In Stock 1
	25.0/25.4mm Optic Dia., SM1 Thin Mount, 8-32	Fixed		#13-788	€21,00 Request Quote	20+ In Stock 1
	25.0mm Optic Dia., Optic Mount	Fixed		#64-560	€32,75 Request Quote	CONTACT US 1
	25.0/25.4mm Optic Dia., E-Series Kinematic Mount	Adjustable - Tip-Tilt		#15-866	€43,50 Request Quote	10 In Stock 1
	2.0 - 35.0mm Optic Dia., Three- Screw Adjustable Ring Mount	Fixed		#03-668	€63,00 Request Quote	20+ In Stock 1
	25.0/25.4mm Optic Dia., L-Slot Direct Mount	Fixed		#36-410	€68,00 Request Quote	15 In Stock 1
	25.0/25.4mm Optic Dia., Side Flange Direct Mount	Fixed		#36-414	€71,00 Request Quote	20+ In Stock 1
	9.5 - 73.0mm Optic Dia., Three- Screw Adjustable Ring Mount	Fixed		#36-605	€83,00 Request Quote	20+ In Stock 1
	25.0/25.4mm Optic Dia., Optical Cell Assembly	Fixed		#36-461 CLEARANCE	€95,95 Request Quote	2 In Stock 1
	25.0/25.4mm Optic Dia., Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#58-851	€98,50 Request Quote	CONTACT US 1

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	 25.0/25.4mm Optic Dia., Kinematic Mount, and Rotation Mount				€102,00	5 In Stock <input type="text" value="1"/> 
MORE+	 5.0 - 25.0mm Optic Height Metric Bar-Type Optic Holder					20+ In Stock <input type="text" value="1"/> 
MORE+	 7.0 - 40.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-676	€106,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#58-854	€107,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-530	€108,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-670	€114,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	€116,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	€120,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	€157,00 Request Quote	5 In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., Stainless Steel Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#26-815	€161,00 Request Quote	4 In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., Stainless Steel Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#26-818	€182,00 Request Quote	9 In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-956	€276,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	€410,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., Precision Gimbal Mount	Adjustable - Gimbal		#54-999	€461,00 Request Quote	4 In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-959	€540,00 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+	 25.0/25.4mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-776	€755,00 Request Quote	2 In Stock <input type="text" value="1"/> 

Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:

Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:

Media Type

- Application Note
- FAQ
- Glossary
- Video

Understanding Neutral Density Filters

What is an ND Filter?

? FAQ

Can I place ND filters back-to-back and increase...

? FAQ

What is the difference between using an absorptiv...

? FAQ

How should I orient my reflective ND or interferenc...

GLOSSARY

Continuously Variable Apodizing Filter

[View More](#)