

# Polarizers

## Polarizers

Natural light and most light sources emit unpolarized light. Polarizers are an excellent solution in applications that require glare reduction due to reflected light. Unpolarized light passing a linear polarizing filter will be linear polarized afterwards in the orientation of the polarizing axis of the filter. Crossing the blocks nearly all light. We offer circular polarizer under B+W brand. A circular polarizer is a combination of a linear polarizer and a quarter wave retarder. They are recommended if optics as mirrors are within the optical path from filter to sensor.

Schneider Kreuznach polarizers are designed to fulfill industrial requirements. They are made of dichroic laminated polarizing polymers cemented between 2 slides of protective glass. Additionally we offer polarizing film for larger sizes or customized shapes and flexible solutions. Polarizing Films consist of long chain polymers, which are aligned by a stretching process to produce the polarization effect. The polarizing film is covered on both sides with cellulose triacetate (TAC) for protection and is therefore mechanically stable.



Call us to discuss your OEM and custom requirements.

### Key Features

- Reduce reflections, increase contrast
- High extinction ratio
- Edge sealed available on request
- Pre-cut custom shapes for polarizing films on request

### Applications

- 3D Applications
- Traffic surveillance / ITS
- Food & Beverage Inspection
- Mechanical Stress Test
- LCD Technology

As an option for unmounted glass polarizer which are often used in harsh environment, and factory automation we recommend edge sealing. Polarizers are sensitive to humidity, to protect the glass from chemical influence we offer edge sealing on request for all Schneider Kreuznach filters.

Edge sealed filters (RL) can be ordered on request only.

### Key Features

- Insensitive to surrounding humidity
- Resistant in harsh environment

### Applications

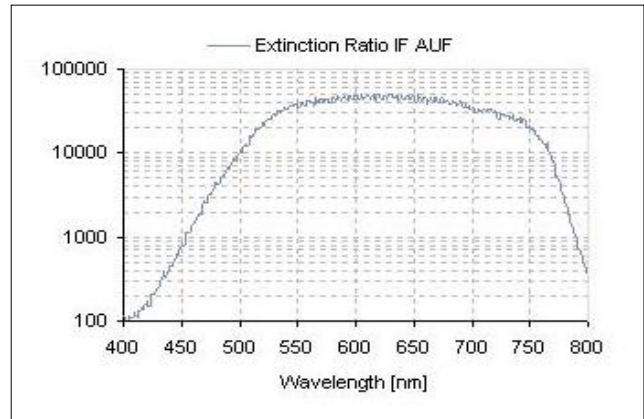
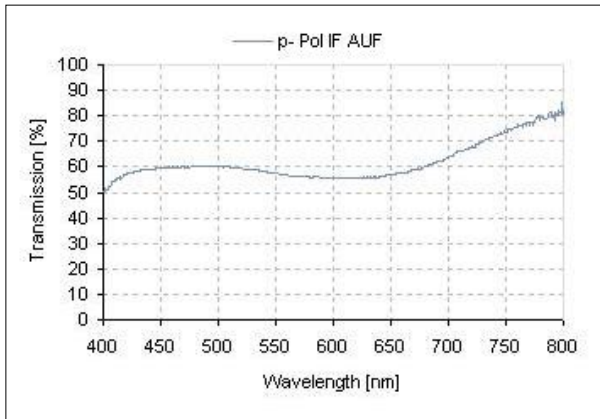
- Surveillance
- Factory automation
- Traffic

### Technical Specifications

according to ISO 10110

Tensile strength	14N / mm <sup>2</sup>
Appearance	Light Yellow
Thickness	+ 0.1mm diameter

# Linear Glass Polarizers AUF



## Technical Specifications

according to ISO 10110

Wavelength range	420 nm - 750 nm
Transmittance	$(T_p + T_s) / 2 \geq 34 \%$
Extinction Ratio	$T_p / T_s > 10\,000:1$
Surface	19-30mm: 5/2x0,10 C2 x 0,10 L3x0,008 31-50mm: 5/2x0,16 C1 x 0,16 L3x0,008 51-64mm: 5/3x0,16 C3 x 0,16 L3x0,008
Wavefront distortion	19 – 30 mm:13/1 (0.40) 31 – 50 mm:13/1 (0.50) 50 – 64 mm:13/1 (0.60)
Coating	uncoated or MRC
Thickness	2.7 mm +/- 0.25 mm
Temperature Range	-20°C - +50°C
Climate Testing	
Slow temperature cycling	DIN ISO 9022-2-14-03 -1
Damp heat, cyclic	DIN ISO 9022-2-16-01-1
Chemical resistant	DIN ISO 9011-4-04-05
Adhesive strength	DIN ISO 9211-4-02-03

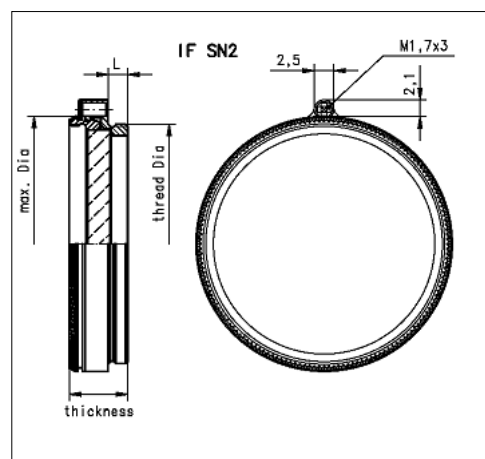
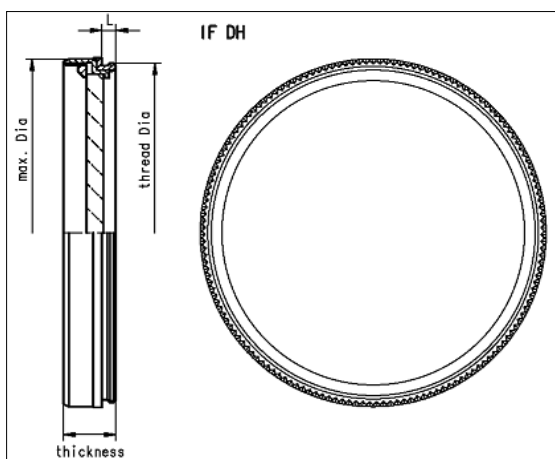
unmounted	filter glass uncoated	ID	unmounted	filter glass AR coated	ID
27 mm	IFG AUF 27,0	1064961	27 mm	IFG AUF MRC 27,0	1036606
34 mm	IFG AUF 34,0	1086470	34 mm	IFG AUF MRC 34,0	
39 mm	IFG AUF 39,0	1064962	39 mm	IFG AUF MRC 39,0	1012998
48 mm	IFG AUF 48,0	1064969	48 mm	IFG AUF MRC 48,0	46903
58 mm	IFG AUF 58,0	1064651	58 mm	IFG AUF MRC 58,0	46927
68 mm	IFG AUF 68,0	1064970	68 mm	IFG AUF MRC 68,0	46940

Edge sealed on request

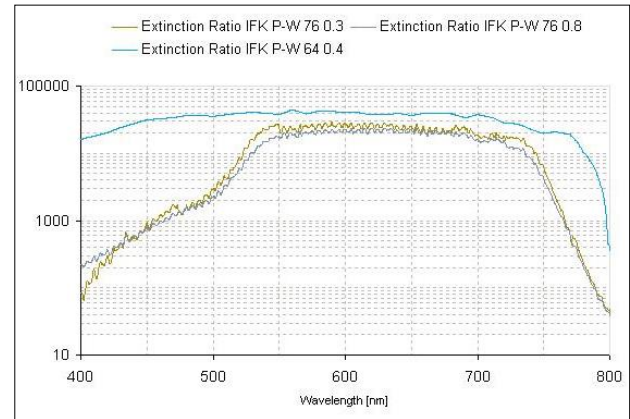
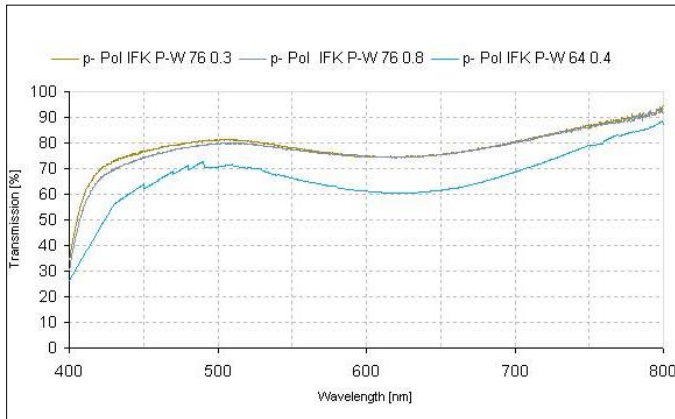
# Linear Glass Polarizers AUF

mounted SN2	filter uncoated	ID	mounted SN2	filter AR coated	ID
SN2 25.5	IF AUF SN2 25.5	1010313	SN2 25.5	IF AUF MRC SN2 25.5	1053421
SN2 27.0	IF AUF SN2 27.0	1010314	SN2 27.0	IF AUF MRC SN2 27.0	1054935
SN2 30.5	IF AUF SN2 30.5	1011655	SN2 30.5	IF AUF MRC SN2 30.5	1010194
SN2 34.0	IF AUF SN2 34.0	1085592	SN2 34.0	IF AUF MRC SN2 34.0	1075140
SN2 35.5	IF AUF SN2 35.5	1054941	SN2 35.5	IF AUF MRC SN2 35.5	1059333
SN2 37.0	IF AUF SN2 37.0	1065942	SN2 37.0	IF AUF MRC SN2 37.0	1010311
SN2 40.5	IF AUF SN2 40.5	1019304	SN2 40.5	IF AUF MRC SN2 40.5	1063384
SN2 43.0	IF AUF SN2 43.0	1054943	SN2 43.0	IF AUF MRC SN2 43.0	1075281
SN2 46.0	IF AUF SN2 46.0	1054944	SN2 46.0	IF AUF MRC SN2 46.0	1054936
SN2 49.0	IF AUF SN2 49.0	1054945	SN2 49.0	IF AUF MRC SN2 49.0	1068232

mounted DH	filter uncoated	ID	mounted DH	filter AR coated	ID
DH 25.5	IF AUF DH 25.5	1006543	DH 25.5	IF AUF MRC DH 25.5	1019305
DH 27.0	IF AUF DH 27.0	1003225	DH 27.0	IF AUF MRC DH 27.0	1008192
DH 30.5	IF AUF DH 30.5	1006544	DH 30.5	IF AUF MRC DH 30.5	1076993
DH 35.5	IF AUF DH 35.5	1006980	DH 35.5	IF AUF MRC DH 35.5	1061081
DH 37.0	IF AUF DH 37.0	1006545	DH 37.0	IF AUF MRC DH 37.0	1017231
DH 40.5	IF AUF DH 40.5	1003336	DH 40.5	IF AUF MRC DH 40.5	1090589
DH 43.0	IF AUF DH 43.0	1008985	DH 43.0	IF AUF MRC DH 43.0	1075424
DH 46.0	IF AUF DH 46.0	1007691	DH 46.0	IF AUF MRC DH 46.0	1008191
DH 49.0	IF AUF DH 49.0	1003337	DH 49.0	IF AUF MRC DH 49.0	1007672
DH 52.0	IF AUF DH 52.0	1007671	DH 52.0	IF AUF MRC DH 52.0	1005685
DH 55.0	IF AUF DH 55.0	1080151	DH 55.0	IF AUF MRC DH 55.0	1013281
DH 58.0	IF AUF DH 58.0	1009114	DH 58.0	IF AUF MRC DH 58.0	1009449
DH 62.0	IF AUF DH 62.0	1078763	DH 62.0	IF AUF MRC DH 62.0	1009102
DH 67.0	IF AUF DH 67.0	1003338	DH 67.0	IF AUF MRC DH 67.0	1078764



# Linear Polarizing Film (P-W 76, P-W 64)



## Technical Specifications

according to ISO 10110

Im type	IFK P-W 76 0.8	IFK P-W 76 0.3	IFK P-W 64 0.4
Wavelength range	430 - 780 nm		
Transmittance	> 30%		
Extinction Ratio	>10.000:1	>10.000:1	~ 40.000:1
Max Size	431 mm x 1270 mm	425 mm x 1270 mm	559 mm x 914 mm
Thickness	0.8 mm	0.3 mm	0.4 mm
Temperature Range	-50 °C - +70 °C		
Substrate	Cellulose Triacetate (TAC)		

size	film	ID
425 mm x 1270 mm	IFK P-W 76 0.3 425 1270	1066587
425 mm x 635 mm	IFK P-W 76 0.3 425 635	1056147
400 mm x 400 mm	IFK P-W 76 0.3 400 400	1045149
200 mm x 200 mm	IFK P-W 76 0.3 200 200	1056150
100 mm x 100 mm	IFK P-W 76 0.3 100 100	1056151
50 mm x 50 mm	IFK P-W 76 0.3 50 50	1056152

size	film	ID
431 mm x 1270 mm	IFK P-W 76 0.8 431 1270	1005631
431 mm x 635 mm	IFK P-W 76 0.8 431 635	1056153
400 mm x 400 mm	IFK P-W 76 0.8 400 400	1056154
200 mm x 200 mm	IFK P-W 76 0.8 200 200	1056155
100 mm x 100 mm	IFK P-W 76 0.8 100 100	1056156
50 mm x 50 mm	IFK P-W 76 0.8 50 50	1056157

size	film	ID
559 mm x 914 mm	IFK P-W 64 0.4 559 914	1006878
400 mm x 400 mm	IFK P-W 64 0.4 400 400	1072586
200 mm x 200 mm	IFK P-W 64 0.4 200 200	1072585
100 mm x 100 mm	IFK P-W 64 0.4 100 100	1072581
50 mm x 50 mm	IFK P-W 64 0.4 50 50	1005887

Pre-cut shape according customer drawing on request

## Polarizers

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Next to the standard sizes we offer more on request. Schneider-Kreuznach provides professional highly accurate  $\mu$  water jet cutting capability. This technology allows cutting almost any needed shape. More mounted diameters are available for high volume on request.

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