

Schneider-Kreuznach
Industrial lenses and
filters for highest quality
built to last!



JM VisTec System
"Our Vision. Tomorrow's Innovation"
- The Machine Vision Specialist



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Schneider-Kreuznach

Expert knowledge for complex requirements

When it comes to optical and precision mechanical components for machine vision, we set the standard. Like no other manufacturer we understand the exact requirements that optical components for industrial applications have to meet – because we ourselves manufacture according to the same strict criteria.

We know that precision, quality and reliability form the basis for long-term solutions.

As a partner, Schneider-Kreuznach also provides customized solutions for OEM projects:

- From planning to development to series production
- Up to 100% production depth
- More than 100 years of experience in optical design and manufacturing
- Proven premium quality



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Schneider-Kreuznach High end solutions for sensationally precise results

Jos. Schneider Optische Werke GmbH is a worldwide acclaimed manufacturer of high performance lenses and filters as well as optical and mechanical components for industrial applications.

More than 100 years of experience in optical design and manufacturing with modern production processes enable Schneider-Kreuznach to offer top-quality products. Furthermore, the competent expert consultation and support contribute to our customer's success.

Schneider-Kreuznach stands for cutting-edge technology engineered in Germany.



ENGINEERED
IN GERMANY



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Schneider-Kreuznach

Overview of industrial lenses

Type	Series	Range of fixed focal length (mm)/magnification ²⁾	Initial aperture	Mount								Max. sensor size				Filter thread	Specials															
				C-mount	V-mount				Canon	F-mount	Leica	Adapter V-/ M-mount					Inch		Sensor		Ruggedized	High end 3D	Motorized	Anti Shading	Beamsplitter							
					38	48	70	90				42x1	42x0.75	58x0.75	72x0.75		95x1	C-mount	F-mount	1/1.8						2/3	1	1.1	1.3	16K (57.3x3.5μ)	16K (82x5μ)	12K (62.5x5μ)
Compact	Ruby	10-35	2.2-2.3	x													x					25.5				x						
	Topaz	25-50	2.0-2.4	x																		34-39				x						
	2/3"	4.8-50	1.4-2.2	x														x				30.5-62	x	x		x						
	1.0"	10-70	1.8-2.2	x															x			30.5-62	x			x						
	1.3"	16-50	2.0-2.8	x																	x	30.5-37	x			x	x					
Line Scan	Sapphire	0.7x - 2.0x	2.8-4.7																			x	x	x			40.5-58					x ¹⁾
	Zirconia	0.2x - 2.0x	2.8-3.2																			x					46					x ¹⁾
	Diamond	2.6x - 3.5x	2.2-2.9																								40.5					x
Macro	V38-Line Scan Lenses	90-120	2.8-5.6		x																						30.5-40.5					
	Unifoc	28-150	2.8-5.6		x																						43-52					
	Varon	85	4.5		x																						37					x
Large Format	Emerald	28-100	2.2-4.0																							43-62						
SWIR	Swiron	23-50	1.4-2.8		x																					30.5-37						

¹⁾ for selected magnifications
²⁾ fixed focal length lenses

Notes for filters

Pre-cuts to any size and custom shape by μ-water jet on request
 Edge sealing on request
 *) Marking of pol axis on request

% = Special filter coating
 E = Standard AR coating
 MRC = Multi resistance coating
 MRCIR = Multi resistance coating for NIR

ULR = Ultra low reflection coating
 MCXL = Multi resistance extended AR coating
 ULRIR = Ultra low reflection for NIR



Product overview for industrial applications

Compact

- High resolution
- C-mount lenses
- 400 nm - 1,000 nm AR broadband coating
- Lockable focus and iris

Fast Lenses HIGH APERTURE

- 2/3" sensor: 0.95/17
- 1" sensor: 0.95/25
- Medical, biotech



Xenon-Topaz ROBUST

- For 1.1" sensor: 2.0/25, 2.0/30, 2.0/38, 2.0/50
- 25, 30, 38 and 50 mm focal length
- Min. 500 mm working distance
- Optional motorized p-iris
- Traffic, surveillance



Xenon-Ruby LIGHT

- For 1/1.8" sensor: 2.2/10, 2.3/16, 2.2/25, 2.3/35
- 10, 16, 25 and 35 mm focal length
- 2.3 - 16 f-stop
- < 60 g low weight
- Industrial automation



Compact

- High resolution
- C-mount lenses
- 400 nm - 1,000 nm AR broadband coating
- Lockable focus and iris

Compact ANTI SHADING

- For 1.3" sensors:
Apo-Xenoplan 2.8/16,
Apo-Xenoplan 2.0/24,
Xenoplan 2.0/28,
Apo-Xenoplan 2.0/35,
Xenoplan 2.8/50



Compact ROBUST

- For 2/3" sensors:
Cinegon 1.8/4.8, Cinegon 2.1/6,
Cinegon 1.4/8, Cinegon 1.4/12,
Xenoplan 1.4/17, Xenoplan 1.4/23,
Apo-Xenoplan 1.4/23, Xenoplan 1.9/35,
Apo-Xenoplan 1.8/35
- For 1" sensors:
Cinegon 1.9/10, Cinegon 1.8/16,
Tele-Xenar 2.2/70
- Motorized p-iris optional
- Ruggedized optional



Line Scan

- High resolution lenses

Sapphire HIGHSPEED

- For 16k / 3.5 μm
- For 12k / 5 μm
- V70-mount
- 0.07x, 0.23x, 0.29x, 0.35x, 0.5x, 0.7x, 0.875x, 1.143x, 1.43x, 1.75x, 2.0x (more magnifications on request)
- 1.75x also available with beamsplitter
- Low chromatic focal shift



Diamond CUTTING EDGE

- For 12k / 5 μm
- For 16k / 5 μm
- V70- and V90-mount
- 2.6x, 3.5x
- Available with or without beamsplitter
- Extremely low chromatic focal shift



Zirconia VERSATILE

- For 12k / 5 μm
- For 16k / 5 μm
- V48-mount
- 72 LP/mm resolution
- 0.2x, 0.33x, 0.5x, 0.7x, 1.0x, 2.0x
- 2.0x also available with beamsplitter
- Focus mount available



Macro

- High imaging performance
- High resolution lenses

V38-Line Scan Lenses MODULAR

- For Makro Unifoc 7, 12, 58, 76:
Apo-Componon 4.5/90,
Makro-Symmar 5.6/120
- 0.3x - 2.0x
- Covers large image circles
- For large field of views
- Highly adjustable component system



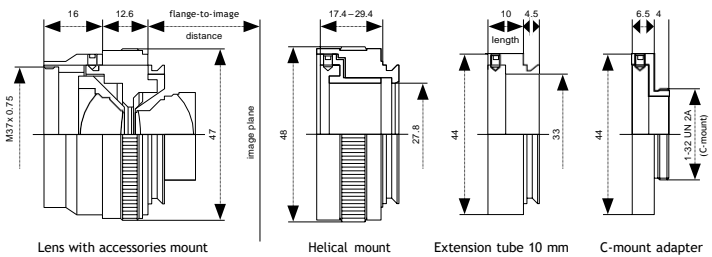
Macro Varon ROBUST

- 4.5/85
- 0.5 x to 2x variable magnification
- For 12k / 3.5 μm
- Low distortion
- High relative illumination over the image height
- Macro Varon 3.5x with beamsplitter



Makro Unifoc MODULAR

- For Makro Unifoc 12 and 7: Componon 2.8/28, Componon 2.8/35, Apo-Componon 2.8/45, Apo-Componon 4.0/45, Componon-S 2.8/50, Apo-Componon 4.0/60, Componon-S 4.0/80, Makro-Symmar 5.6/80, Apo-Componon 4.5/90, Componon-S 5.6/100
- For Unifoc 58 and 76: Componon 4.0/28, Componon 4.0/35, Apo-Componon 2.8/40, Apo-Componon 4.0/45, Componon-S 2.8/50, Apo-Componon 4.0/60, Componon-S 4.0/80, Apo-Componon 4.5/90, Componon-S 5.6/100, Componon-S 5.6/135, Componon-S 5.6/150
- Wide magnification range
- Low chromatic aberration
- Highly adjustable component system
- Image circle 30 mm to 100 mm



Large Format

- Lockable focus and iris
- High resolution lenses

Xenon-Emerald FLEXIBLE

- 2.8/28 (S), 2.8/28 (L), 2.2/50, 4.0/60, 4.0/80, 2.8/100 (S), 2.9/100 (L)
- 400 nm - 1,000 nm AR broadband coating
- 43.2 mm image circle (4.0/60, 4.0/80: 60 mm image circle)
- Close up and long range versions
- F-mount, V48-mount



SWIR

- Lockable focus and iris
- High performance lenses

Swiron RESILIENT

- 2.8/50
- 12.5 μ Pixel Size
- 900 nm - 1,700 nm, corrected
- 25.6 mm image circle
- 0.25 - 2.5 m working distance
- < 2 % distortion
- C- and V-mount

Coated versions

- 1.4/23, 2.8/40
- 800 nm - 1,800 nm
- 11 mm (1.4/23) image circle
- 43.2 mm (2.8/40) image circle



Filters

Category	Type	AR coating	Unmounted/ IFG ø (mm)	Mounted/IF
Pol*)	Linear polarizing glass filter	MRC or uncoated	27 - 74	CMT or 25.5 - 67
	Linear polarizing film 0.3 mm	uncoated	max. 425 x 1270	not available
	Linear polarizing film 0.8 mm	uncoated	max. 431 x 1270	not available
	Linear polarizing film 0.4 mm	uncoated	max. 559 x 914	not available

ND	OD 0.3	E	27 - 74	CMT or 25.5 - 67
	OD 0.6	E	27 - 74	CMT or 25.5 - 67
	OD 0.9	E	27 - 74	CMT or 25.5 - 67
	OD 1.8	uncoated	27 - 74	CMT or 25.5 - 67
	OD 3.0	uncoated	27 - 74	CMT or 25.5 - 67

Color	Light red > 600 nm	E or MRC	27 - 74	CMT or 25.5 - 67
	Red > 625 nm	E or MRC	27 - 74	CMT or 25.5 - 67
	Dark red > 695 nm	MRCIR or uncoated	27 - 74	CMT or 25.5 - 67
	Black red > 775 nm	MRCIR or uncoated	27 - 74	CMT or 25.5 - 67
	NIR pass > 825 nm	MRCIR or uncoated	27 - 74	CMT or 25.5 - 67

Category	Type	AR coating	Unmounted/ IFG ø (mm)	Mounted/IF
UV-IR-cut/ protection	Window	E	12.5 - 74	on request
	UV cut > 365 nm	E or MRC	27 - 74	CMT or 25.5 - 67
	UV/IR cut 380 - 650 nm	%	19 - 64	CMT or 25.5 - 67
	UV/IR cut 380 - 660 nm	%	19 - 64	CMT or 25.5 - 67
	UV/IR cut 390 - 690 nm	%	19 - 64	CMT or 25.5 - 67
	IR cut < 750 nm	E or MRC	27 - 74	CMT or 25.5 - 67
	400 - 650 nm & 800 - 900 nm	%	on request	on request

Shortpass	Shortpass < 460 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 515 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 615 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 730 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 760 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 790 nm	ULR	19 - 64	CMT or 25.5 - 67
	Shortpass < 850 nm	ULR	19 - 64	CMT or 25.5 - 67

Filters

Category	Type	AR coating	Unmounted/ IFG ø (mm)	Mounted/IF
Longpass	Longpass > 400 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 430 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 460 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 495 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 515 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 530 nm	MCXL	19 - 64	CMT or 25.5 - 67
	Longpass > 565 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 590 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 610 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 630 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 695 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 725 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 765 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 780 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 820 nm	ULRIR	19 - 64	CMT or 25.5 - 67
	Longpass > 850 nm	ULRIR	19 - 64	CMT or 25.5 - 67
Longpass > 900 nm	ULRIR	19 - 64	CMT or 25.5 - 67	

Category	Type	AR coating	Unmounted/ IFG ø (mm)	Mounted/IF
Bandpass	Bandpass 430 - 500 nm	ULR	19 - 64	CMT or 25.5 - 67
	Bandpass 400 - 580 nm	ULR	19 - 64	CMT or 25.5 - 67
	Bandpass 495 - 580 nm	%	19 - 64	CMT or 25.5 - 52
	Bandpass 495 - 660 nm	%	19 - 64	CMT or 25.5 - 52
	Bandpass 565 - 615 nm	%	19 - 64	CMT or 25.5 - 52
	Bandpass 495 - 690 nm	%	19 - 64	CMT or 25.5 - 67
	Bandpass 610 - 660 nm	%	19 - 64	CMT or 25.5 - 67
	Bandpass 590 - 690 nm	%	19 - 64	CMT or 25.5 - 67
	Bandpass 630 - 690 nm	%	19 - 64	CMT or 25.5 - 67
	Bandpass 630 - 730 nm	%	19 - 64	CMT or 25.5 - 67
Bandpass 815 - 915 nm	%	19 - 64	CMT or 25.5 - 67	

Narrow bandpass	Narrow bandpass 398 - 413 nm	ULR	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 447 - 467 nm	ULR	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 478 - 498 nm	%	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 522 - 542 nm	%	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 625 - 645 nm	%	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 655 - 665 nm	%	19 - 64	CMT or 25.5 - 67
	Narrow bandpass 788 - 833 nm	%	19 - 64	CMT or 25.5 - 67
	Narrow Bandpass 820 - 840 nm	%	19 - 64	CMT or 25.5 - 67

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