Xenon-Zirconia 3.2/92 | -2.0x | BS

This lens with beamsplitter for coaxial illumination is designed for 12k / 5µm and 16k / 5µm line scan sensors. Optimized for a specific magnification of 2.0x the lens provides high performance in a small and compact package. The universal V48-Mount enables the best azimuth adjustment and the assembly of accessories like focusing mount, extension tubes and camera adapters.

Key features

- For 12k / 5 µm and 16k / 5µm line scan sensors
- With beamsplitter for coaxial illumination
- Best azimuth marking
- 400 nm to 1000 nm broadband AR-coating

Applications

- FPD inspection
- PCB inspection
- High resolution defect detection
- Quality assurance

Technical specifications

Type [standard]	-0003
ID [standard]	1078988
Interface	V48-Mount
Focal length [mm]	92
F/# range	F/3.2 ... F/11
Numerical aperture [object | image]	0.10 | 0.05
Max. sensor size [mm]	82
Max. angle of view [°]	17
Rec. magnification range	-2.0 (-2.2 ... -1.8)
Rec. working distance range [mm]	62 ... 72
Max. mechanical focus travel [mm]	-
Filter thread [mm]	M46 x 0.75
Storage temperature [°C]	-25 … +70
Net. weight [g]	560
Additional info	Max. chief ray angle in object space = 8.3°
f'eff [mm]	93.29
SF [mm]	-20.80
S'F' [mm]	54.35
HH' [mm]	-12.09
ß'P	1.02
SEP [mm]	71.05
S'AP [mm]	-40.41
Σd [mm]	99.35

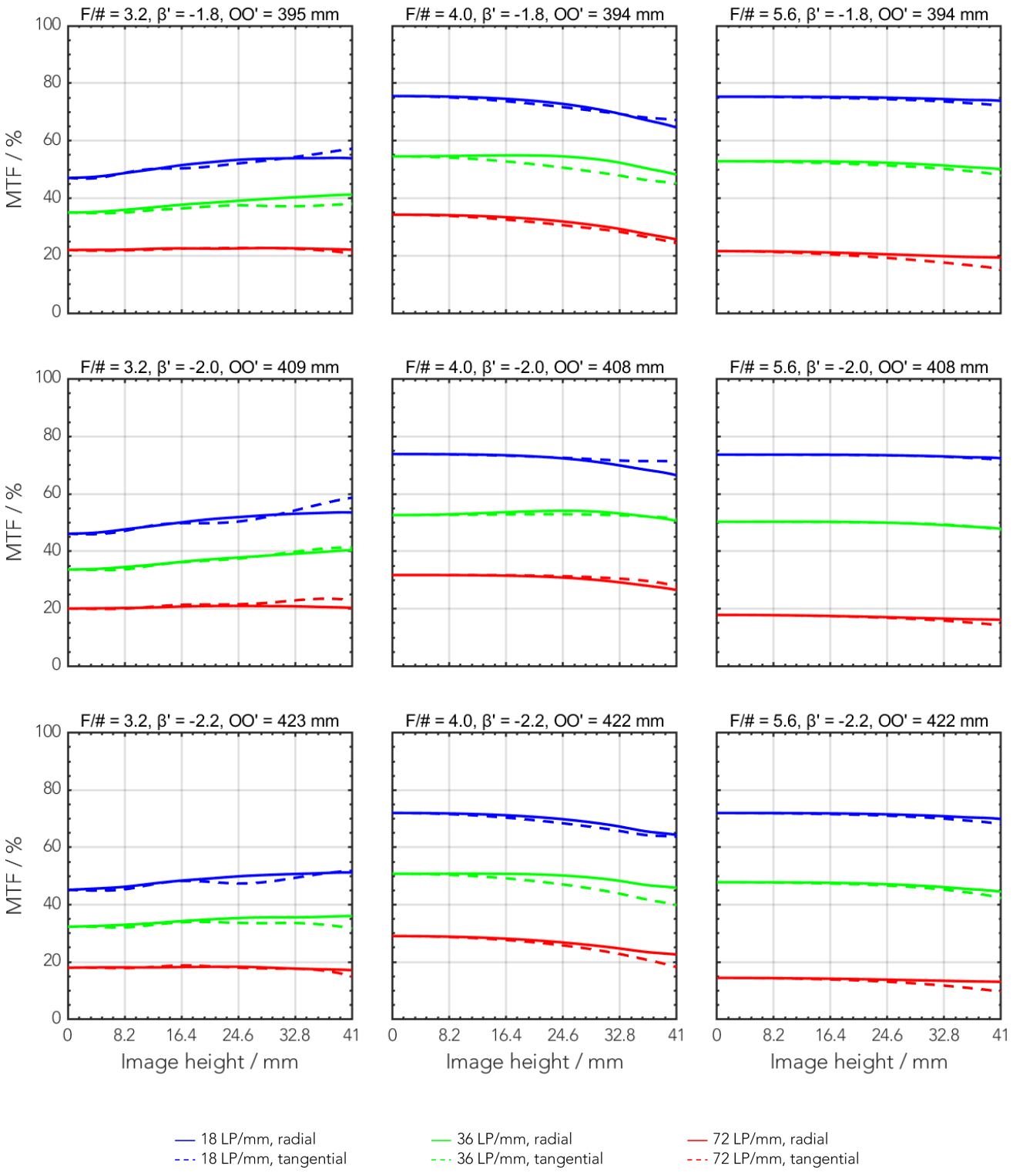
© Jos. Schneider Optische Werke
We accept no responsibility for an

ADEPT TURNKEY
SMARTER IMAGING FOR BETTER LIVES
Perth: (08) 9242 5411 Melbourne: (03) 9384 1775 Sydney: (02) 9905 1551
Email: sales@adeptturnkey.com.au
Web site: www.adept.net.au

Xenon-Zirconia 3.2/92 | -2.0x | BS

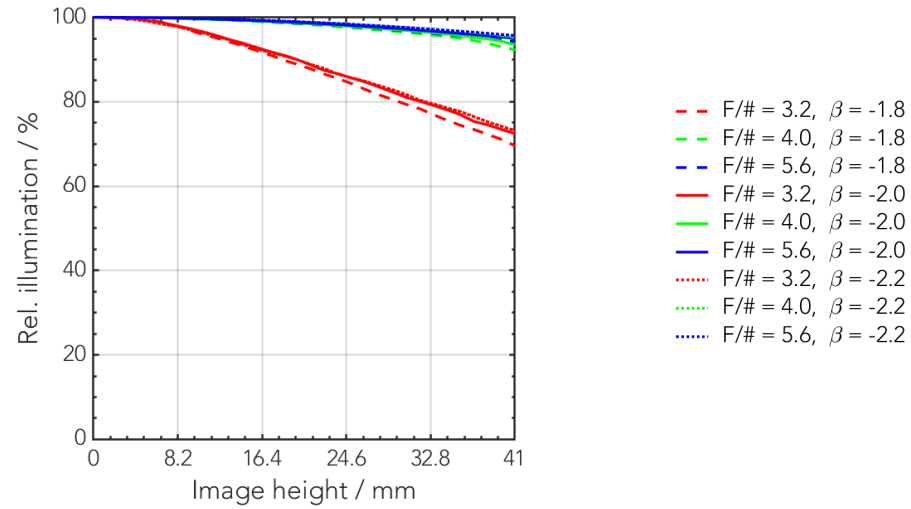
MTF charts

Spectrum name	VIS					
Wavelengths [nm]	425	475	525	575	625	675
Rel. weights [%]	8	16	23	22	19	13

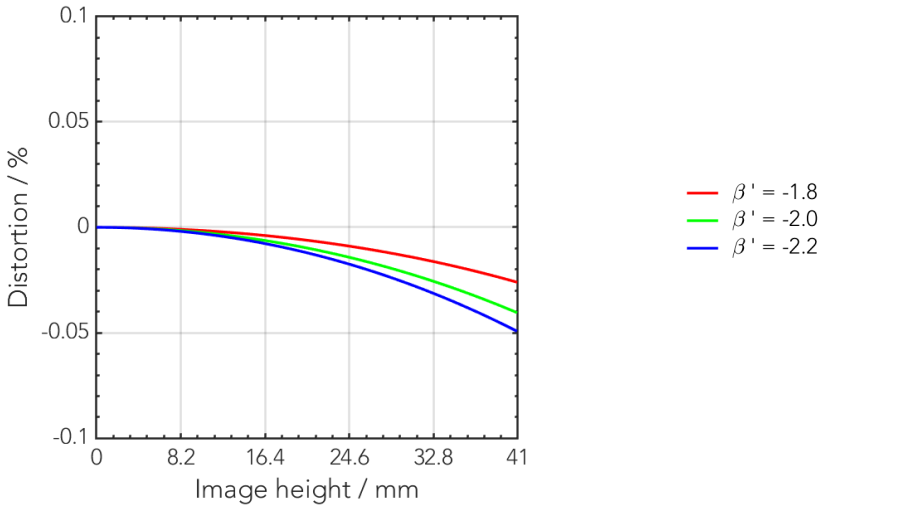


© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.

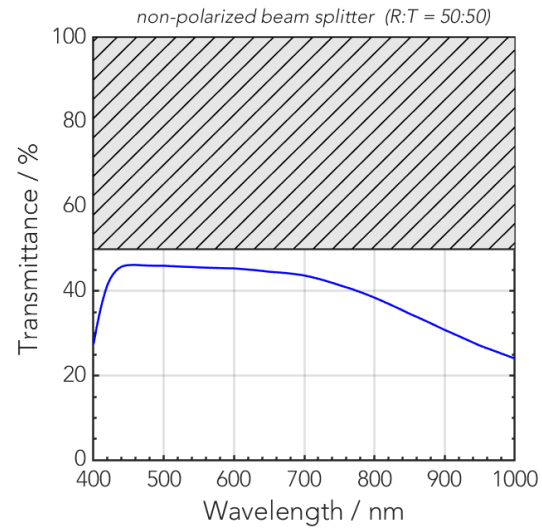
Rel. illumination vs. image height



Distortion vs. image height

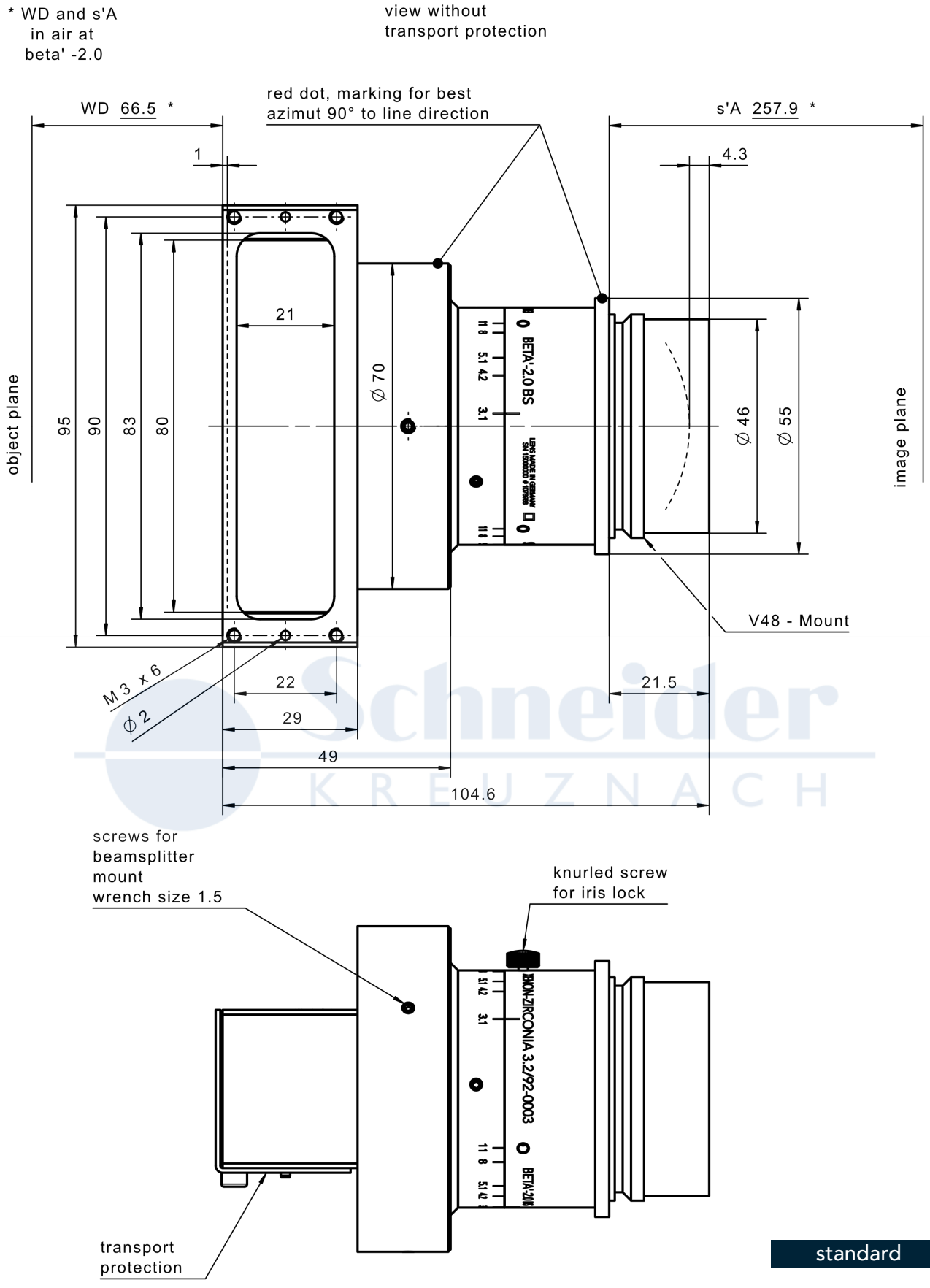


Transmittance vs. wavelength



© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.

Technical drawings



standard

© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.

Xenon-Zirconia 3.2/92 | -2.0x | BS

Accessories	Mount	Eff. length	ID
Extension Tube	V48	10 mm	1072661
	V48	25 mm	1072651
	V48	50 mm	1072662
	M72 x 0,75	5 mm	1072420
	M72 x 0,75	10 mm	1072421
	M72 x 0,75	25 mm	26406
	M72 x 0,75	50 mm	1054733
	M72 x 0.75	100 mm	1079483
	M90 x 1	10 mm	1084875
	M90 x 1	25 mm	1084876
	M90 x 1	50 mm	1084877
	M90 x 1	100 mm	1084878
	M95 x 1	10 mm	1077290
	M95 x 1	25 mm	1062892
	M95 x 1	50 mm	1062893
	M95 x 1	100 mm	1062894
Adapter	V48 / V70 with focusing	15.6 - 37.6 mm	1075304
	V48 / M42 x 0.75	8.5 mm	1072652
	V48 / M42 x 1	8.5 mm	1072660
	V48 / M58 x 0.75	10 mm	1072659
	M58 x 0.75 / M90 x 1	4 mm	1084880
	V70 / M72 x 0.75	10 mm	1072419
	M72 x 0.75 / M42 x 1	6 mm	1079515
	M72 x 0.75 / M58 x 0.75	6 mm	1075556
	M72 x 0.75 / M90 x 1	4 mm	1084879
	M72 x 0.75 / M95 x 1	4 mm	1077013

© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.

Annotation	
Focal length	Nominal focal length
F/# range	Image space F-number range for infinity focus position
Numerical aperture	Maximum real numerical aperture (depending on recommended magnification range either for infinity or respective fixed magnification)
Max. sensor size	Image circle diameter
Max. angle of view	Angle of view associated with maximum sensor size (depending on recommended magnification range either for infinity or respective fixed magnification)
Rec. magnification range	Magnification range as recommended by Schneider-Kreuznach
Rec. working distance range	Working distance, i.e. distance between object and first mechanical element, associated with recommended magnification range
Max. mechanical focus travel	Maximum possible movement of the lens from infinity position (depending on recommended magnification range either for infinity or respective fixed magnification)
Net weight	weight of unpacked lens without lens cap
f'eff	Effective focal length
SF	Distance between vertex of first lens surface and object space focal point
S'F'	Distance between vertex of last lens surface and image space focal point (back focal distance at infinity)
HH'	Distance between principal planes
ß'P	Pupil magnification (= exit pupil diameter / entrance pupil diameter)
SEP	Distance between vertex of first lens surface and entrance pupil
S'AP	Distance between vertex of last lens surface and exit pupil
Σ d	Distance between vertices of first and last lens surface
s'A	Flange focal distance (in air) for infinite object distance (depending on recommended magnification range either for infinity or respective fixed magnification)
ß'	Magnification (= image size / object size), negative value because image is inverted
OO'	Distance between object and image

Unless otherwise stated all dimensions in this data sheet are in mm.

© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.

Headquarters Europe

Jos. Schneider Optische Werke GmbH
Ringstraße 132
55543 Bad Kreuznach
✆ +49 671 601 205
✉ cs@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

ADEPT TURNKEY
SMARTER IMAGING FOR BETTER LIVES
Perth: (08) 9242 5411 **Melbourne:** (03) 9384 1775 **Sydney: (02)** 9905 1551
Email: sales@adeptturnkey.com.au
Web site: www.adept.net.au

© Jos. Schneider Optische Werke GmbH | 4/2021 | Jos. Schneider Optische Werke GmbH is certified ISO 9001.
We accept no responsibility for any errors and reserve the right of modification without further notice.