

Line scan lens

Makro-Symmar 5.6/120-0.75x

Wherever complex web and surface inspections are concerned, the line scan image capture method is used in most cases. Due to the principle used, this method requires a very careful choice of camera and an optimally adapted lens in order to achieve maximum system performance. It is essential to observe important application-specific and physical parameters: the size of the CCD or CMOS imaging sensor in the camera defines the minimum required image circle of the lens.



Makro-Symmar 5.6/120

Key Features

- Very high optical image quality in the large sensor range
- Vibration-insensitive for stable optical performance
- Reverse position of the lens possible to enlarge the magnification range
- Lockable distance and aperture settings
- Use in best azimuth position possible
- Industry-compatible V-mount interface
- 100% quality control guarantees reliability and constant quality
- Low maintenance requirements, therefore high system availability

Applications

- Web and surface inspections
- Quality control
- FPD inspection
- PCB inspection
- OLED inspection
- Line scan applications

Technical Specifications

F-number	5.6
Focal length	120.2 mm
Image circle	86 mm
Magnification	-0.75
Transmission	400 - 1000 nm
Interface	V-Mount
Weight	170 gr.
Option	Optical filter

Contact

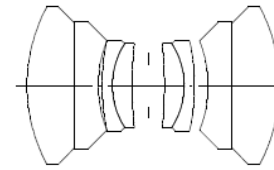
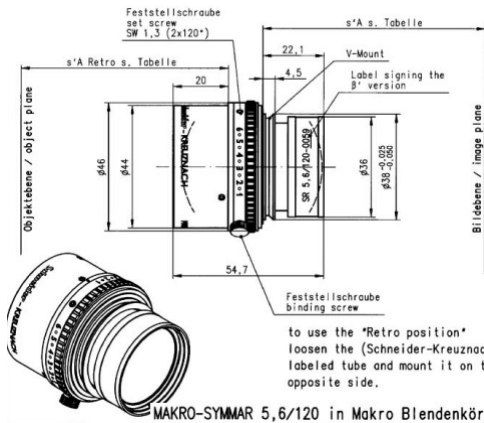
Jos. Schneider Optische Werke GmbH
 Ringstraße 132
 55543 Bad Kreuznach
 Germany
 Phone +49 671 601-387
 Fax +49 671 601-286
www.schneiderkreuznach.com/industrialoptics
industrie@schneiderkreuznach.com

Schneider Asia Pacific Ltd.
 20/F Central Tower, 28 Queen's Road
 Central, Hong Kong
 China
 Phone +852 8302 0301
 Fax +852 8302 4722
www.schneider-asiapacific.com
info@schneider-asiapacific.com

Schneider Optics Inc.
 285 Oser Ave.
 Hauppauge, NY 11788
 USA
 Phone +1 631 761-5000
 Fax +1 631 761-5090
www.schneideroptics.com/industrial
industrial@schneideroptics.com

Makro-Symmar 5.6/120-0.75

Pyramid Imaging



M-SR 5.6/120 BETA -0.625...-0.875

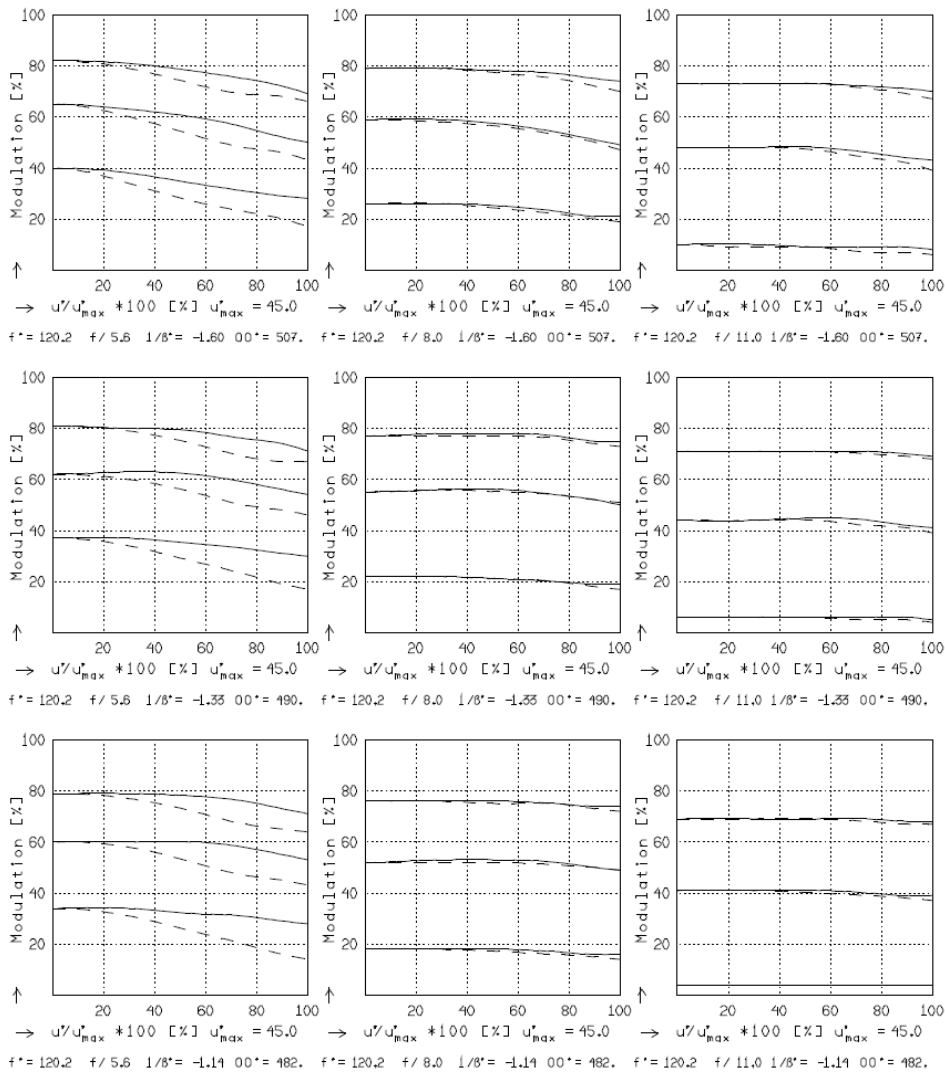
$f^* = 120.2 \text{ mm}$ $\beta_p = 0.994$
 $s_F = -94.8 \text{ mm}$ $s_{EP} = 26.1 \text{ mm}$
 $s_F^* = 94.1 \text{ mm}$ $s_{AP} = -25.4 \text{ mm}$
 $HH^* = -1.2 \text{ mm}$ $\Sigma d = 50.4 \text{ mm}$

M-SR 5.6/120 BETA -0.625...-0.875

MODULATION with reference to the relative image height

Wavelength λ [nm]	555	655	605	505	455	405
Spectral weighting [%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm]	20	40	80			
Format [mm X mm]	90.0	X	0.0			
Diagonal $2u'$ [mm]	90.0					

radial —
 tangential - -



Focusing : MTF_{max} at $f / 5.6$. $R = 80$ 1/mm. $u'/u'_{max} = 0$

