

3 Mega Pixel lens

Xenoplan 1.9/35

In accordance with the sensitivity of modern 2 / 3" CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). Even under production and / or extreme conditions, the robust mechanical design with lockable focus and iris setting mechanism guarantees reliable continuous use in which the set optical parameters remain in place.



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Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

| | |
|--------------|----------------|
| F-number | 1.9 |
| Focal length | 34.9 mm |
| Image circle | 11 mm |
| Transmission | 400 - 1000 nm |
| Interface | C-Mount |
| Weight | 92 gr. |
| Option | Optical filter |

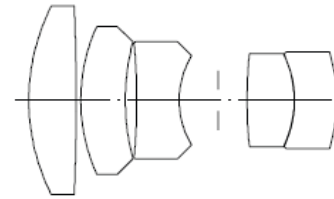
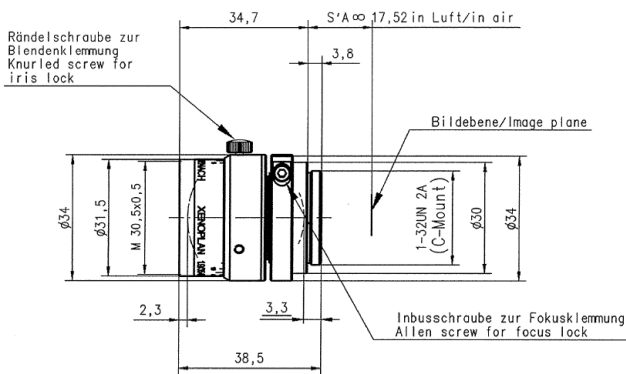
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Xenoplan 1.9/35



XENOPLAN 1.9/35MM

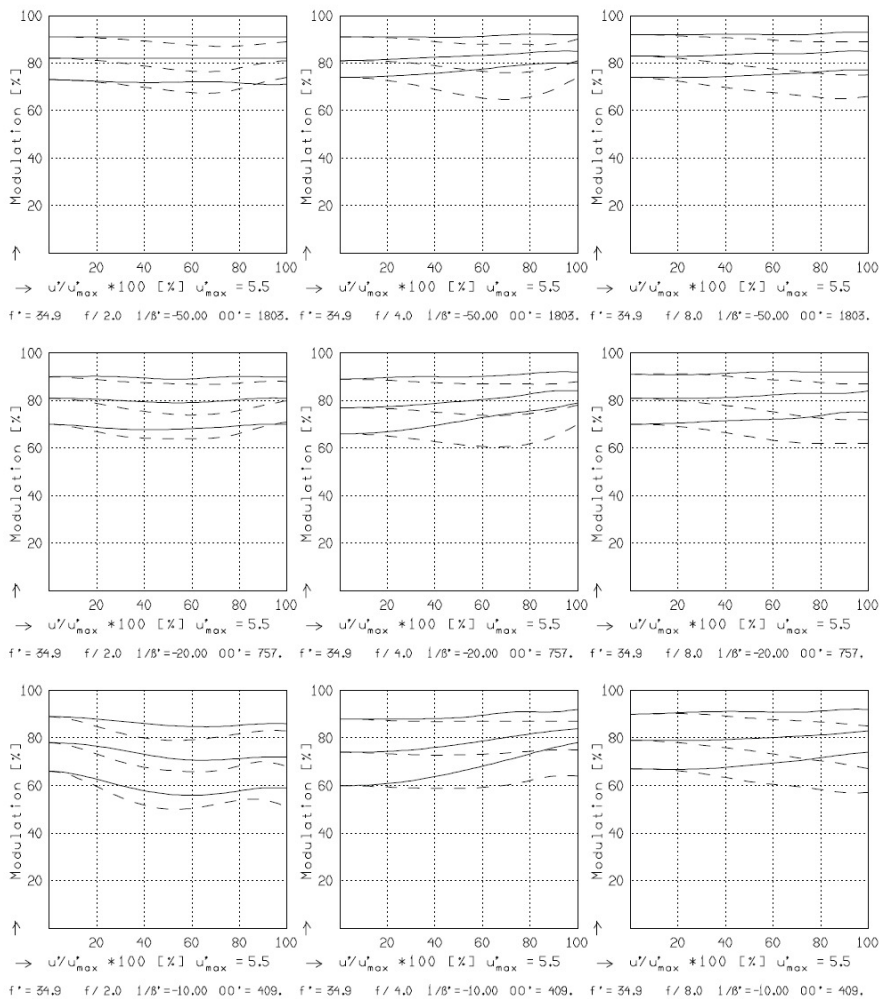
$f^* = 34.9 \text{ mm}$ $\beta_p = 0.879$
 $s_F = -6.5 \text{ mm}$ $s_{EP} = 33.3 \text{ mm}$
 $s_{F'} = 17.0 \text{ mm}$ $s_{AP} = -13.7 \text{ mm}$
 $HH^* = -13.8 \text{ mm}$ $\Sigma d = 32.6 \text{ mm}$

XENOPLAN 1.9/35MM

MODULATION with reference to the relative image height

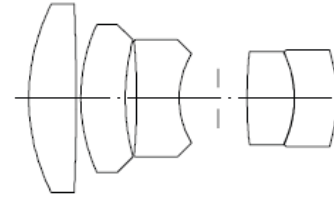
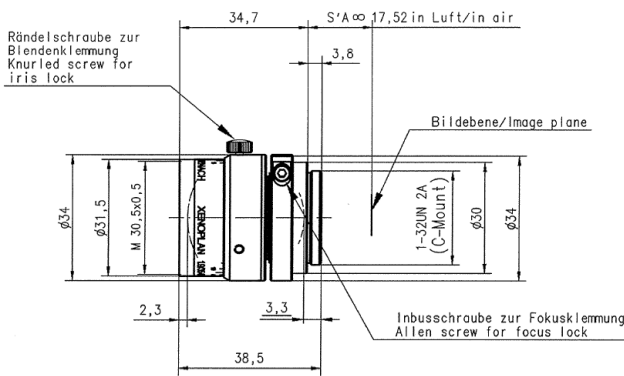
| | | | | | | | |
|----------------------|-----------|------|------|------|------|------|-----|
| Wavelength λ | [nm] | 555 | 655 | 605 | 505 | 455 | 405 |
| Spectral weighting | [%] | 19.6 | 23.7 | 22.2 | 15.7 | 12.1 | 6.7 |
| Spatial frequency R | [1/mm] | 10 | 20 | 30 | | | |
| Format | [mm X mm] | 6.6 | X | 8.8 | | | |
| Diagonal $2u'$ | [mm] | 11.0 | | | | | |

radial —
tangential - -



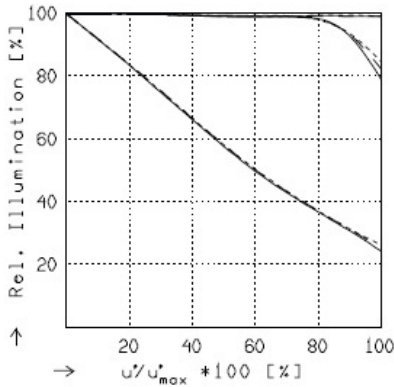
Focusing : MTF_{max} at f / 1.9 . R = 30 1/mm. $u'/u'_{max} = 0$

Xenoplan 1.9/35



XENOPLAN 1.9/35MM

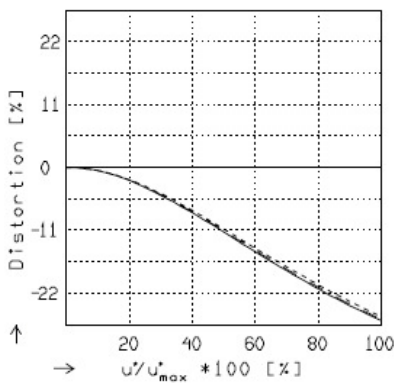
| | |
|----------------------------|------------------------------|
| $f' = 34.9 \text{ mm}$ | $\beta'_p = 0.879$ |
| $s_F = -6.5 \text{ mm}$ | $s_{EP} = 33.3 \text{ mm}$ |
| $s_{F'} = 17.0 \text{ mm}$ | $s_{AP} = -13.7 \text{ mm}$ |
| $HH' = -13.8 \text{ mm}$ | $\Sigma d = 32.6 \text{ mm}$ |



RELATIVE ILLUMINATION

The relative illumination is shown for the given focal distances or magnifications.

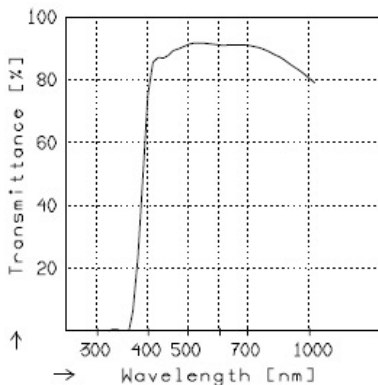
| | $f / 1.9$ | $f / 4.0$ | $f / 8.0$ |
|-------------------------|------------------|--------------|-----------|
| — $\beta' = -0.0200$ | $u'_{max} = 5.5$ | $00' = 294.$ | |
| - - $\beta' = -0.0333$ | $u'_{max} = 5.5$ | $00' = 195.$ | |
| $\beta' = -0.0500$ | $u'_{max} = 5.5$ | $00' = 145.$ | |



DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

| | | |
|-------------------------|------------------|--------------|
| — $\beta' = -0.0200$ | $u'_{max} = 5.5$ | $00' = 294.$ |
| - - $\beta' = -0.0333$ | $u'_{max} = 5.5$ | $00' = 195.$ |
| $\beta' = -0.0500$ | $u'_{max} = 5.5$ | $00' = 145.$ |



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.