

3 Mega Pixel lens

Xenoplan 1.4/17

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 | 1.4 |
| Focal length | 17.6 mm |
| Image circle | 11 mm |
| Transmission | 400 - 1000 nm |
| Interface | C-Mount |
| Weight | 85 gr. |
| Option | Optical filter |

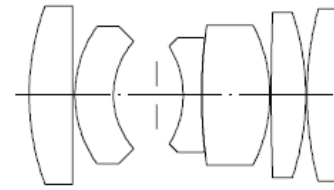
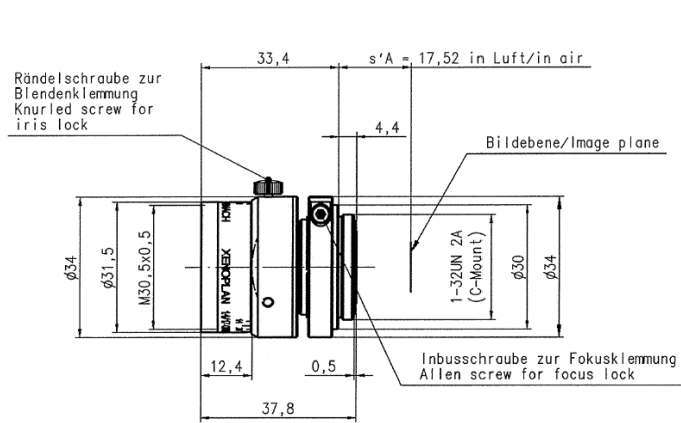
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XENOPLAN 1.4/17MM

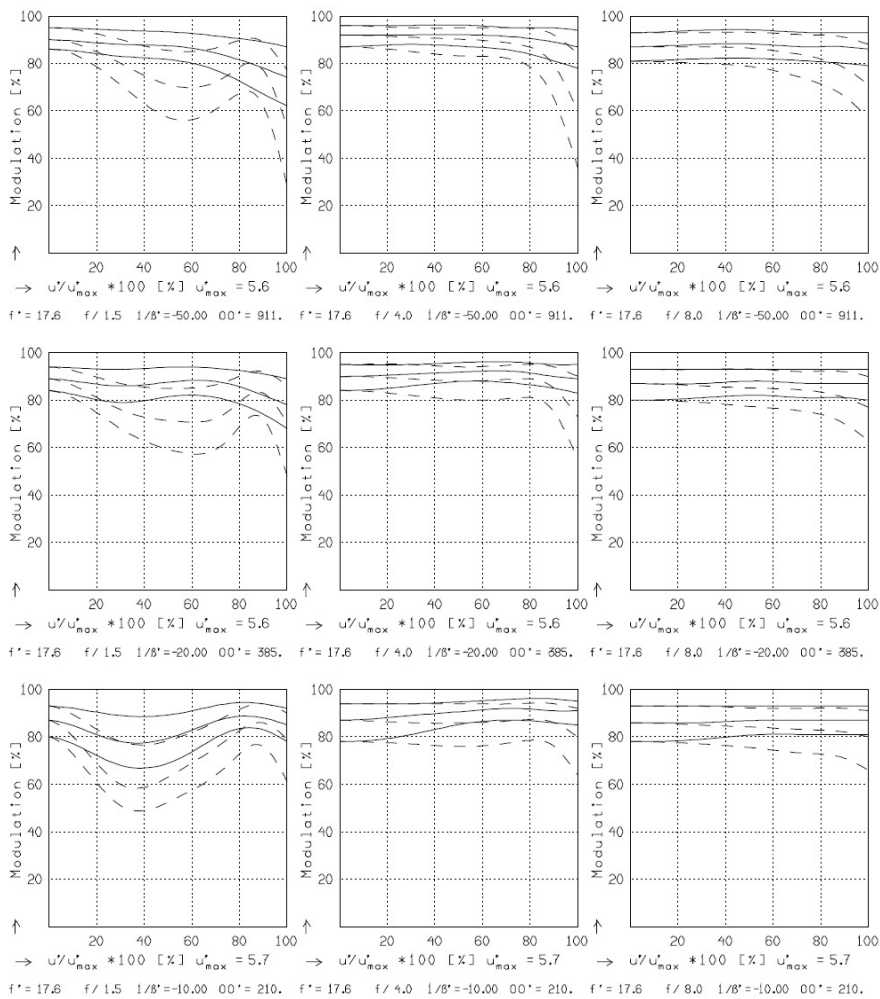
| | | | |
|---------|-----------|------------|------------|
| f^* | = 17.6 mm | β_p | = 2.975 |
| s_F | = 6.1 mm | s_{EP} | = 12.0 mm |
| s_F^* | = 13.2 mm | s_{AP} | = -39.1 mm |
| HH^* | = -3.2 mm | Σd | = 24.9 mm |

XENOPLAN 1.4/17MM

MODULATION with reference to the relative image height

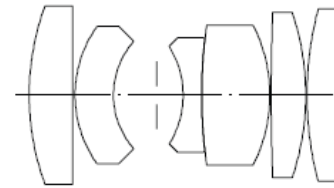
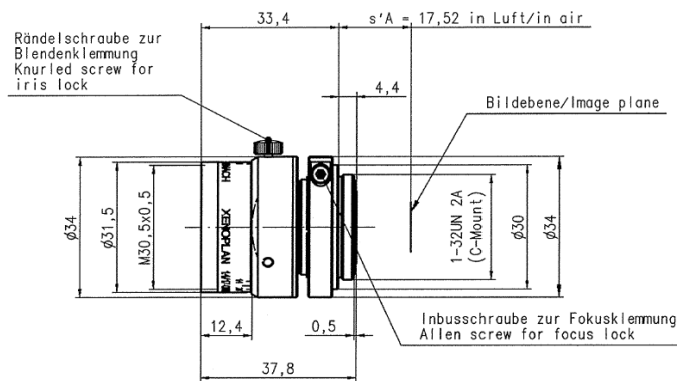
| | | | | | | | |
|----------------------|-----------|------|------|------|------|------|-----|
| Wavelength λ | [nm] | 555 | 655 | 605 | 505 | 455 | 405 |
| Spectral weighting | [%] | 19.6 | 23.7 | 22.2 | 15.7 | 12.1 | 6.7 |
| Spatial frequency R | [1/mm] | 10 | 20 | 30 | | | |
| Format | [mm X mm]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

radial —
tangential - -



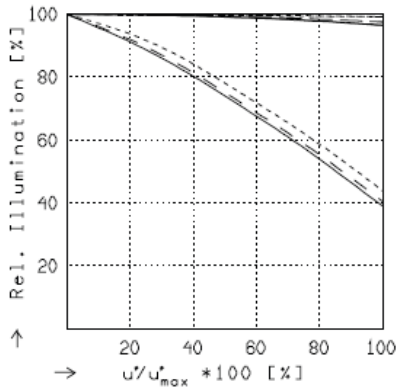
Focusing : MTF_{nox} at f / 1.4 , R = 30 1/mm. $u'/u'_{nox} = 0$

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XENOPLAN 1.4/17MM

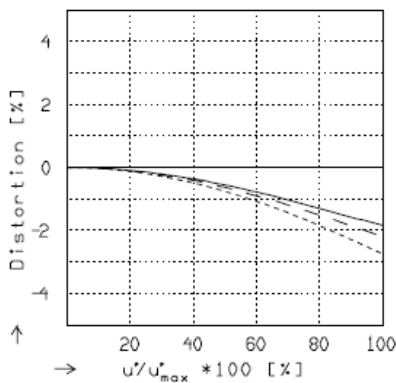
| | |
|---------------------|----------------------|
| f^* = 17,6 mm | β_p = 2.975 |
| s_F = 6,1 mm | s_{EP} = 12,0 mm |
| s_{F^*} = 13,2 mm | s_{AP} = -39,1 mm |
| HH^* = -3,2 mm | Σd = 24,9 mm |



RELATIVE ILLUMINATION

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

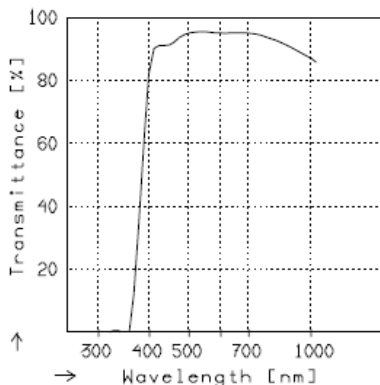
| | f / 1.5 | f / 4.0 | f / 8.0 |
|--------------------------|-------------------|--------------|---------|
| — $\beta' = -0.0200$ | $u_{max}^* = 5.5$ | $00' = 911.$ | |
| - - $\beta' = -0.0500$ | $u_{max}^* = 5.5$ | $00' = 384.$ | |
| - - - $\beta' = -0.1000$ | $u_{max}^* = 5.5$ | $00' = 209.$ | |



DISTORTION

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

| | | |
|--------------------------|-------------------|--------------|
| — $\beta' = -0.0200$ | $u_{max}^* = 5.5$ | $00' = 911.$ |
| - - $\beta' = -0.0500$ | $u_{max}^* = 5.5$ | $00' = 384.$ |
| - - - $\beta' = -0.1000$ | $u_{max}^* = 5.5$ | $00' = 209.$ |



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.



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