

Basler Lens C125-0418-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 1/2"
- Basler Premium Lens
- Metal housing
- C-mount
- Low ghosting and veiling glare
- High contrast
- Locking screws for iris and focus
- Accurate focusing mechanism

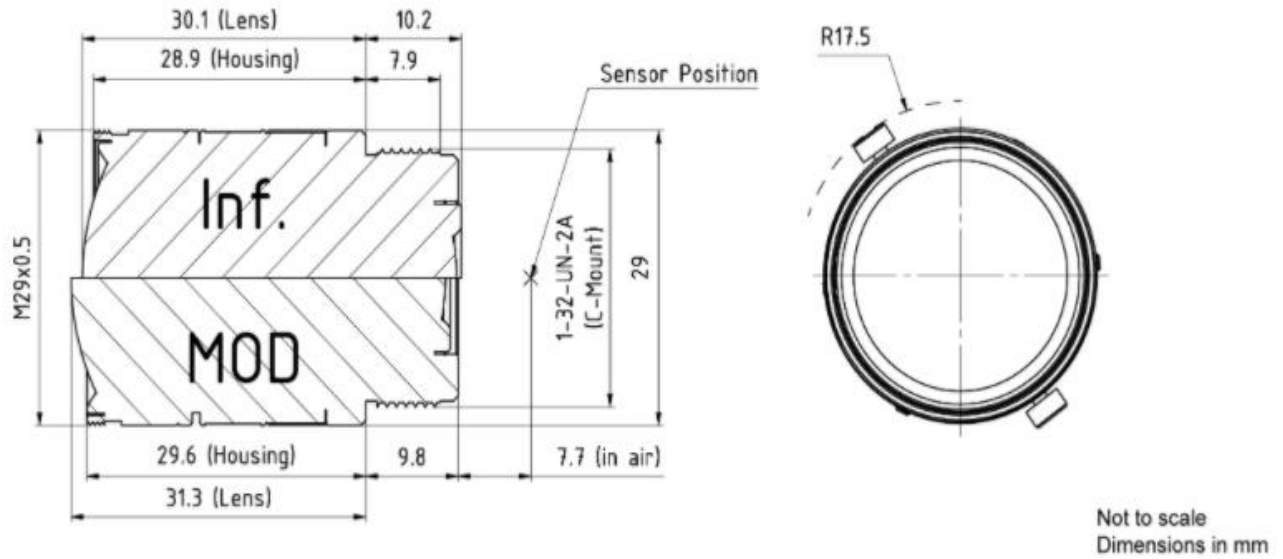
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 55 g
Focus/Iris Operation	Manual Operating angle: 288°

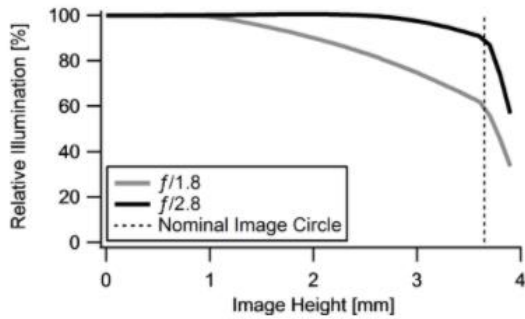
General Specifications

Focal Length f'	4.09 mm \pm 5 %
Aperture Range	F1.8–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.1 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.008
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 μ m pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -18%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 76.0° (@ MOD) to 76.4° Vertical: 58.2° (@ MOD) to 58.5°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 65.6° (@ MOD) to 66.0° Vertical: 49.6° (@ MOD) to 49.9°
Wavelength Range	400–700 nm
Pupil Magnification, β^*P	4.84
Chief Ray Angle, CRA	8.6°
Front Focal Length, sF	9.95 mm
Back Focal Length, s'F	8.09 mm
Principal Point Separation, HH'	29.71 mm
Entrance Pupil Position, sEP	10.66 mm
Exit Pupil Position,	-15.24 mm

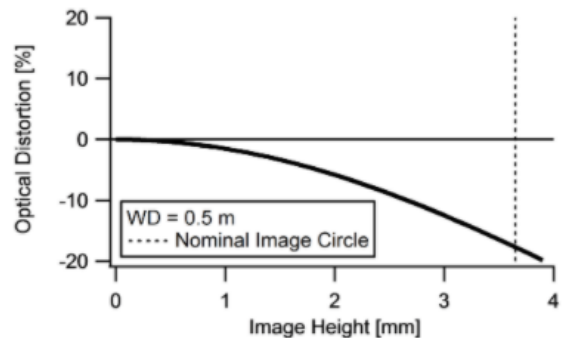
Lens Dimensions



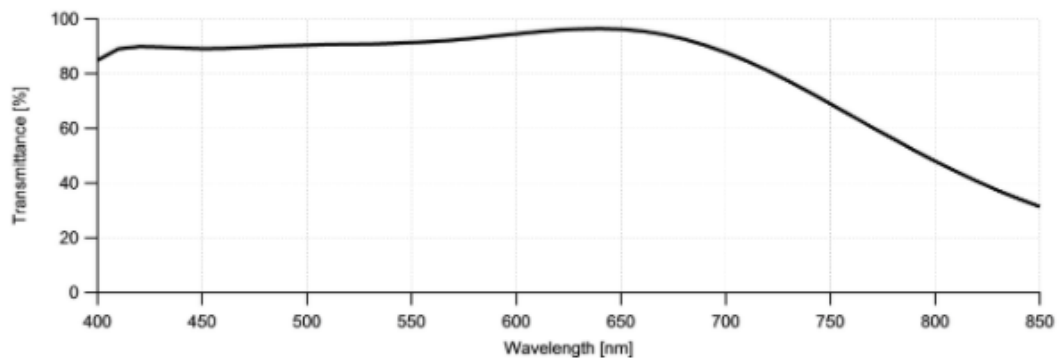
Relative Illumination versus Image Height



Distortion versus Image Height



Transmittance



Basler Lens C125-0618-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 1/2"
- Basler Premium Lens
- Metal housing
- C-mount
- Low ghosting and veiling glare
- High contrast
- Locking screws for iris and focus
- Accurate focusing mechanism

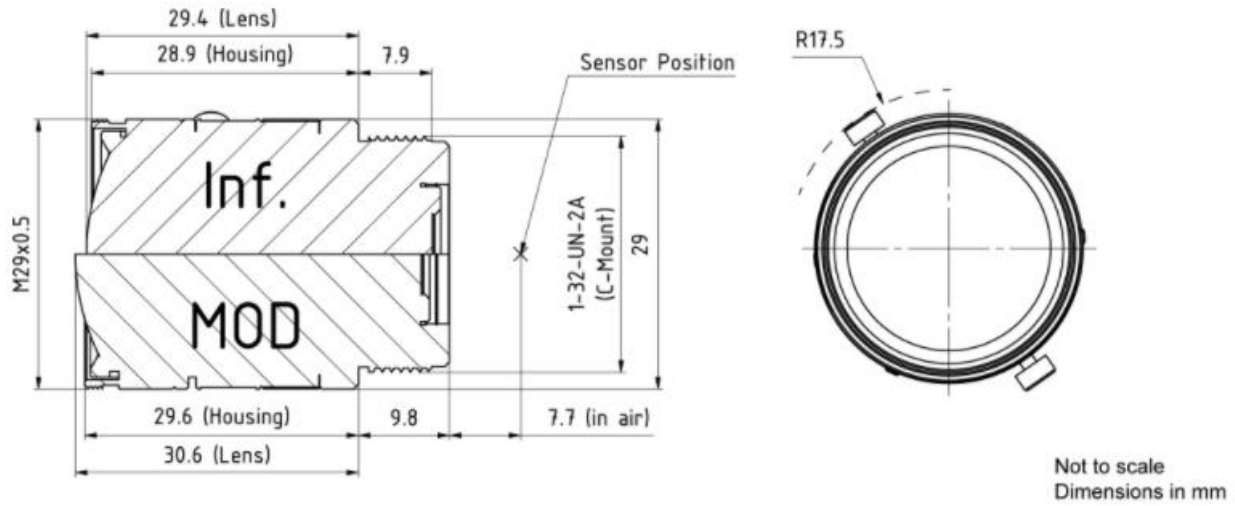
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 55 g
Focus/Iris Operation	Manual Operating angle: 288°

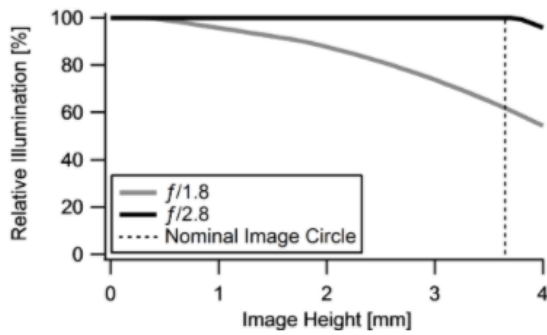
General Specifications

Focal Length f'	6.05 mm ± 5 %
Aperture Range	F1.8–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.1 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.012
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 μm pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -9.9%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 52.4° (@ MOD) to 53.1° Vertical: 39.6 (@ MOD) to 40.1°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 44.9° (@ MOD) to 45.5° Vertical: 33.6° (@ MOD) to 34.1°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	3.95
Chief Ray Angle, CRA	8.2°
Front Focal Length, sF	12.62 mm
Back Focal Length, s'F	9.75 mm
Principal Point Separation, HH'	22.45 mm
Entrance Pupil Position, sEP	14.15 mm
Exit Pupil Position,	-14.16 mm

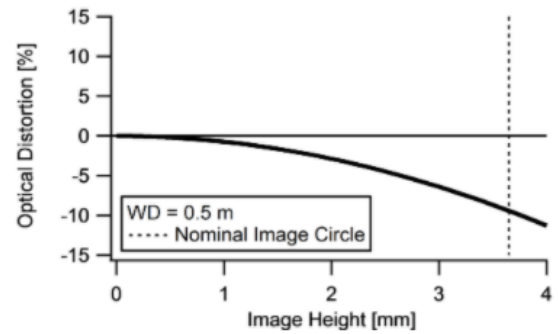
Lens Dimensions



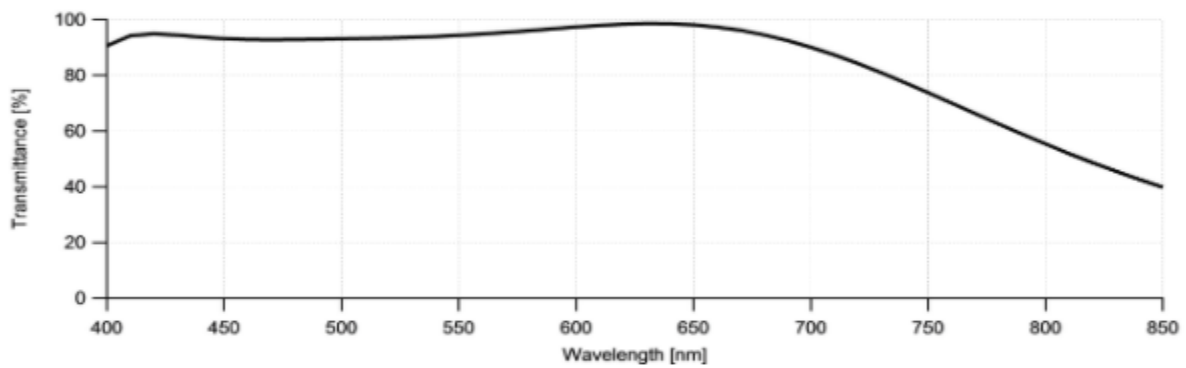
Relative Illumination versus Image Height



Distortion versus Image Height



Transmittance



Basler Lens C125-0818-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 1/2"
- Basler Premium Lens
- Metal housing
- C-mount
- Low ghosting and veiling glare
- High contrast
- Locking screws for iris and focus
- Accurate focusing mechanism

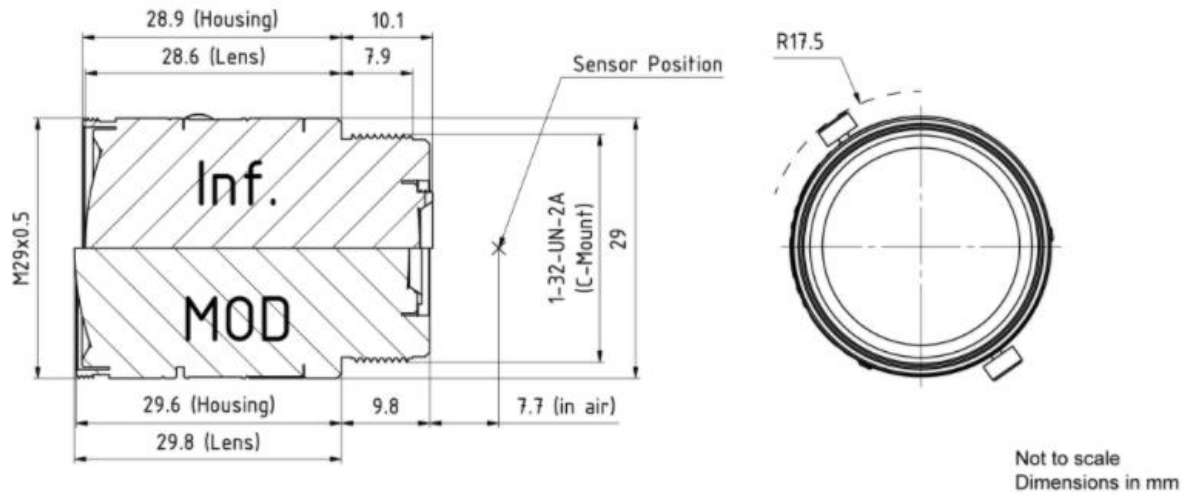
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 55 g
Focus/Iris Operation	Manual Operating angle: 288°

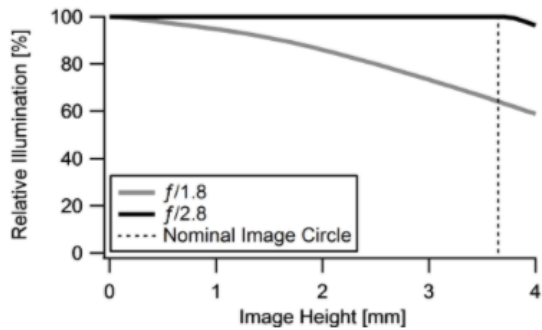
General Specifications

Focal Length f'	8.11 mm ± 5 %
Aperture Range	F1.8–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.1 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.016
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 μm pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -5%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 38.7° (@ MOD) to 39.6° Vertical: 29.3° (@ MOD) to 29.9°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 33.2° (@ MOD) to 33.9° Vertical: 24.9° (@ MOD) to 25.4°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	3.00
Chief Ray Angle, CRA	8.0°
Front Focal Length, sF	14.65 mm
Back Focal Length, s'F	9.00 mm
Principal Point Separation, HH'	15.44 mm
Entrance Pupil Position, sEP	17.36 mm
Exit Pupil Position,	-15.31 mm

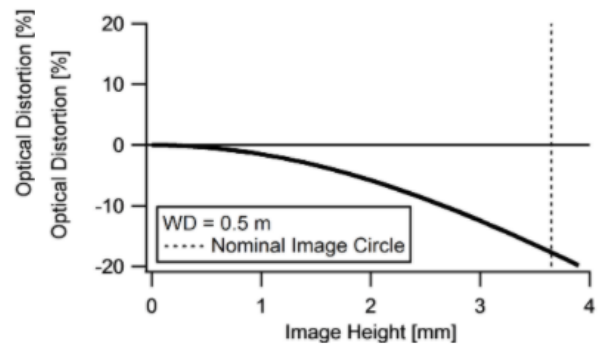
Lens Dimensions



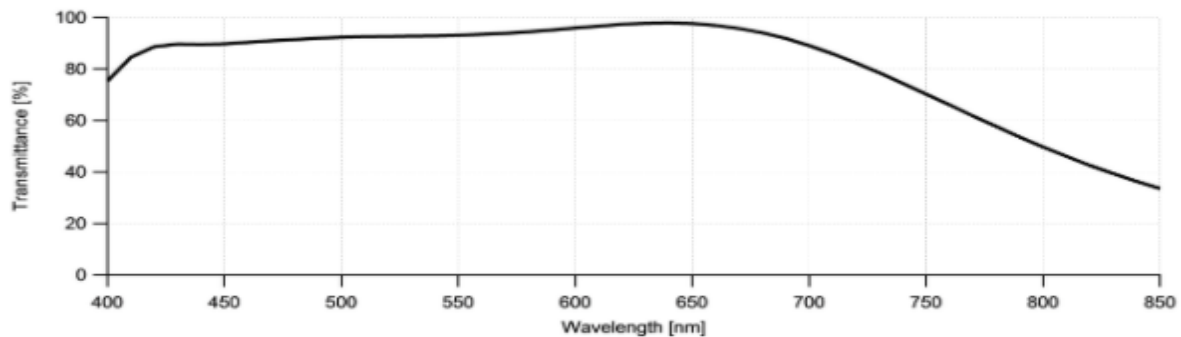
Relative Illumination versus Image Height



Distortion versus Image Height



Transmittance



Basler Lens C125-1218-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 1/2"
- Basler Premium Lens
- Metal housing
- C-mount
- Low ghosting and veiling glare
- High contrast
- Locking screws for iris and focus
- Accurate focusing mechanism

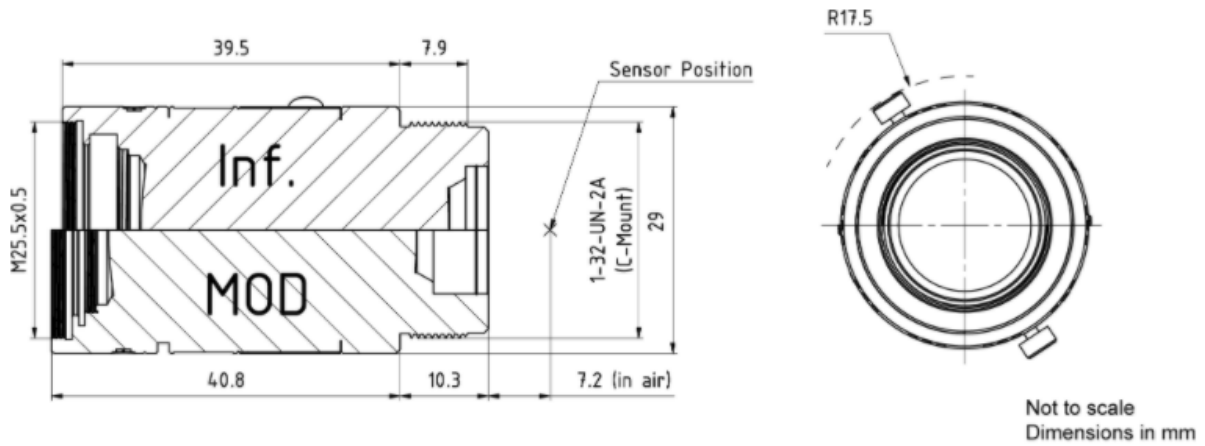
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 65 g
Focus/Iris Operation	Manual Operating angle: 960°

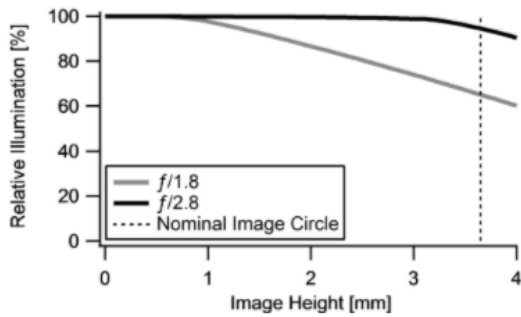
General Specifications

Focal Length f'	12.05 mm ± 5 %
Aperture Range	F1.8–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.2 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.023
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 μm pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -2.2%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 26.3° (@ MOD) to 27.0° Vertical: 19.8° (@ MOD) to 20.3°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 22.4° (@ MOD) to 23.1° Vertical: 16.8° (@ MOD) to 17.2°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	2.15
Chief Ray Angle, CRA	8.0°
Front Focal Length, sF	10.72 mm
Back Focal Length, s'F	12.15 mm
Principal Point Separation, HH'	13.21 mm
Entrance Pupil Position, sEP	16.32 mm
Exit Pupil Position,	-13.84 mm

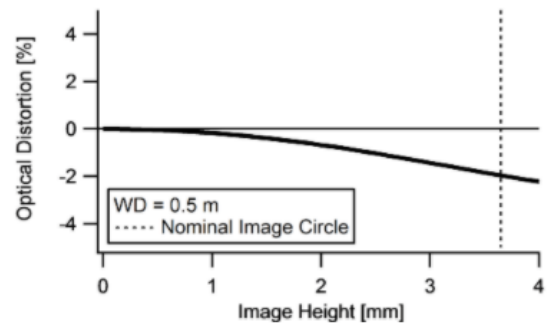
Lens Dimensions



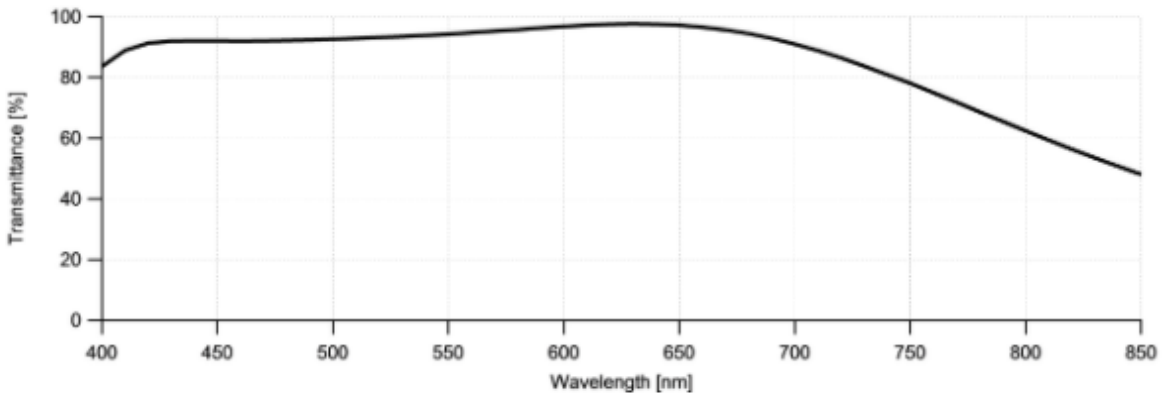
Relative Illumination versus Image Height



Distortion versus Image Height



Transmittance



Basler Lens C125-1620-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 1/2"
- Basler Premium Lens
- Metal housing
- C-mount
- Low ghosting and veiling glare
- High contrast
- Locking screws for iris and focus
- Accurate focusing mechanism

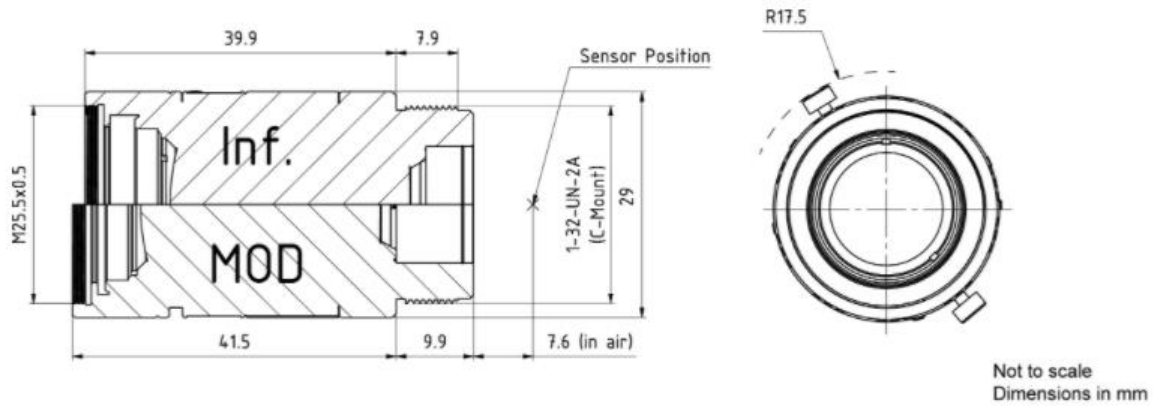
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 60 g
Focus/Iris Operation	Manual Operating angle: 960°

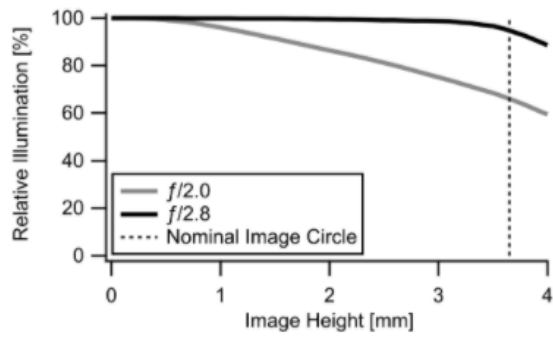
General Specifications

Focal Length f'	16 mm ± 5 %
Aperture Range	F2.0–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.2 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.031
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 µm pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -1%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 19.5° (@ MOD) to 20.3° Vertical: 14.6° (@ MOD) to 15.3°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 16.6° (@ MOD) to 17.3° Vertical: 12.4° (@ MOD) to 12.9°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	1.78
Chief Ray Angle, CRA	7.3°
Front Focal Length, sF	9.85 mm
Back Focal Length, s'F	15.96 mm
Principal Point Separation, HH'	4.84 mm
Entrance Pupil Position, sEP	18.82 mm
Exit Pupil Position,	-12.60 mm

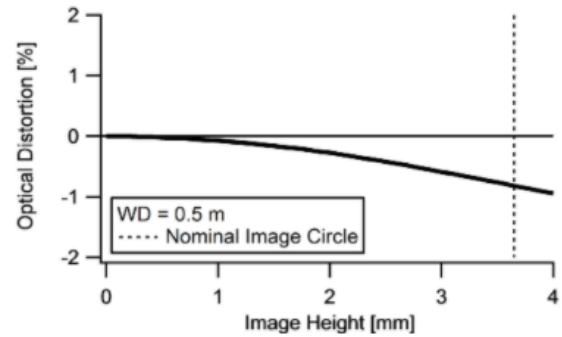
Lens Dimensions



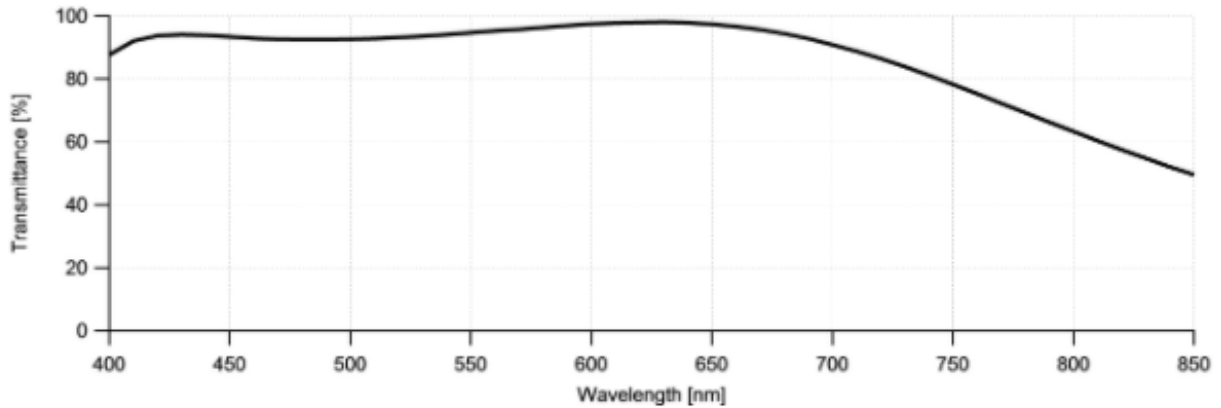
Relative Illumination versus Image Height



Distortion versus Image Height



Transmittance



Basler Lens C23-2518-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 2/3"
- Basler Premium Lens
- Metal housing
- C-mount
- Locking screws for iris and focus
- High contrast

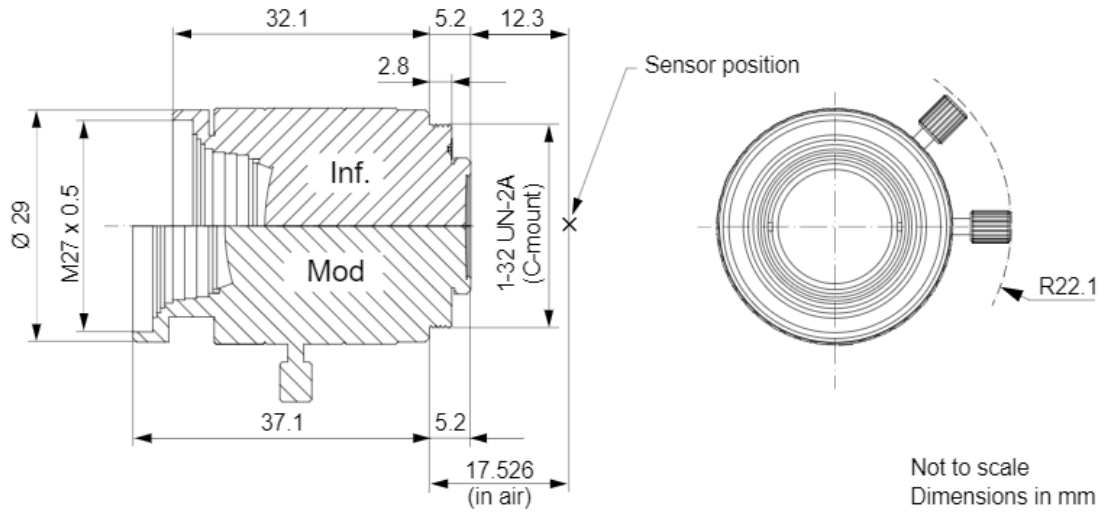
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 62 g
Focus/Iris Operation	Manual

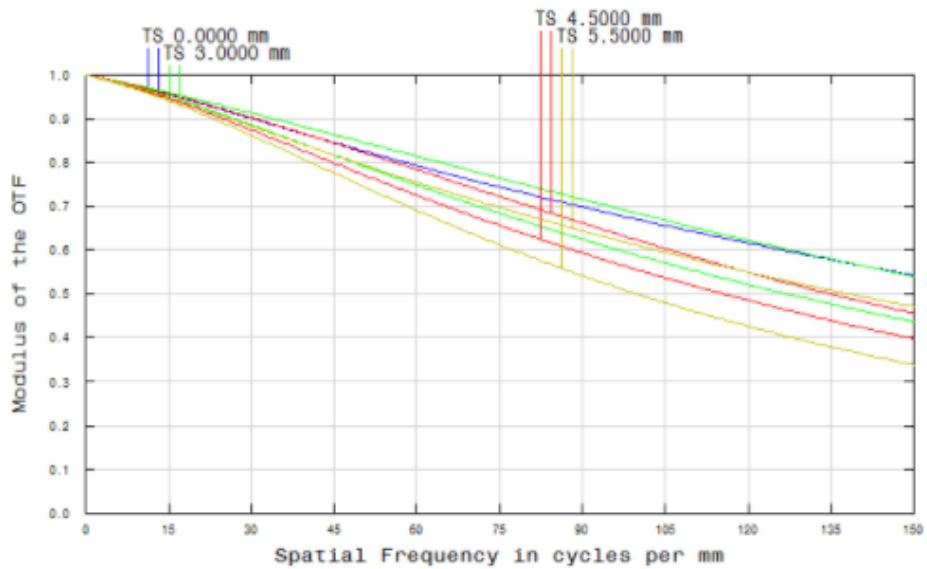
General Specifications

Focal Length f'	6.05 mm \pm 5 %
Aperture Range	F1.8–F22
Image Circle	7.3 mm (1/2.5" format)
Focus Range	0.1 m to infinity
Optimum Working Distance	0.5 m
Optimum Magnification	0.012
Relative Illumination at Full Aperture	At least 55%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 230 LP/mm (2.2 μ m pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	At least 50 % of resolution in image center
Optical Distortion	Typical -9.9%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 52.4° (@ MOD) to 53.1° Vertical: 39.6 (@ MOD) to 40.1°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 44.9° (@ MOD) to 45.5° Vertical: 33.6° (@ MOD) to 34.1°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	3.95
Chief Ray Angle, CRA	8.2°
Front Focal Length, sF	12.62 mm
Back Focal Length, s'F	9.75 mm
Principal Point Separation, HH'	22.45 mm
Entrance Pupil Position, sEP	14.15 mm
Exit Pupil Position,	-14.16 mm

Lens Dimensions



Resolution versus Image Height



Basler Lens C23-3518-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 2/3"
- Basler Premium Lens
- Metal housing
- C-mount
- Locking screws for iris and focus
- High contrast

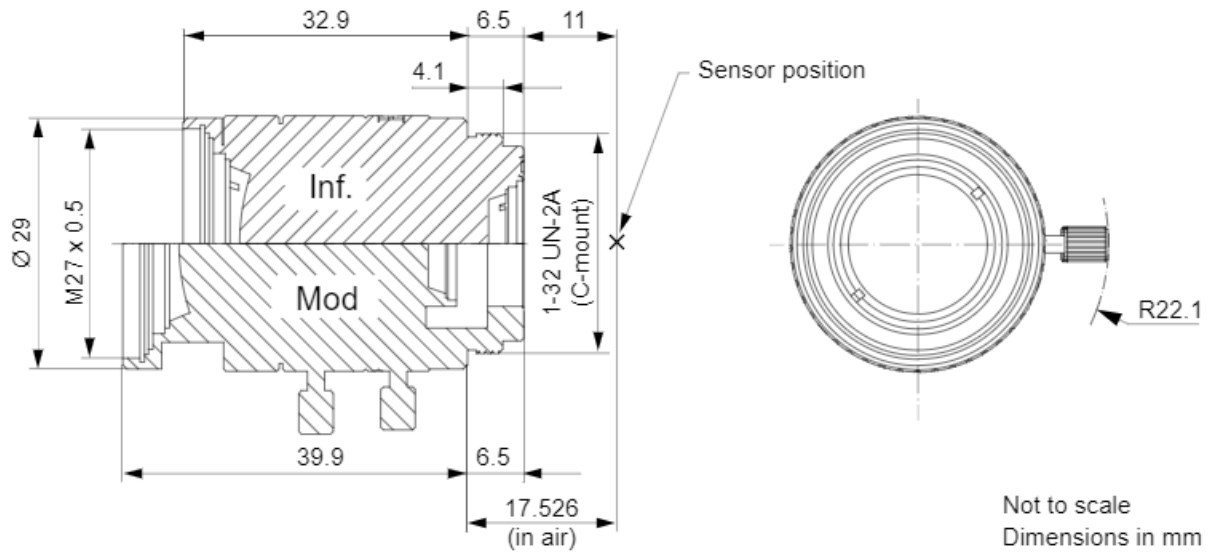
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 71 g
Focus/Iris Operation	Manual

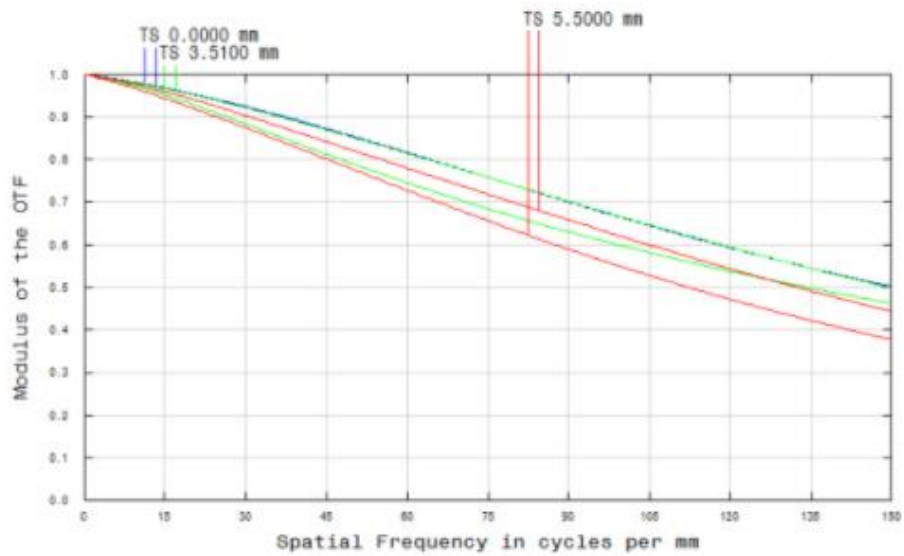
General Specifications

Focal Length f'	35.09 mm \pm 5 %
Aperture with Highest Resolution	F2.4
Aperture Range	F1.8–F16
Image Circle	11 mm (2/3" format)
Focus Range	0.2 m to infinity
Optimum Working Distance	0.3 m
Optimum Magnification	NA
Relative Illumination at Full Aperture	73%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 147 LP/mm (3.40 μ m pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	NA
Optical Distortion	Typical 0.14%
Angle of View, 1/1.8" Format	Horizontal: 11.7° Vertical: 8.7°
Angle of View, 2/3" Format	Horizontal: 14.3° Vertical: 10.8°
Wavelength Range	400–700 nm
Pupil Magnification, β'P	NA
Chief Ray Angle, CRA	NA
Front Focal Length, sF	NA
Back Focal Length, s'F	17.65 mm
Principal Point Separation, HH'	NA
Entrance Pupil Position, sEP	NA
Exit Pupil Position, s'AP	NA
Overall Optical Length, d	NA

Lens Dimensions



Resolution versus Image Height



Basler Lens C23-5028-5M-P

Product:



Key Features

- Fits all Basler cameras with a sensor size of up to 2/3"
- Basler Premium Lens
- Metal housing
- C-mount
- Locking screws for iris and focus
- High contrast

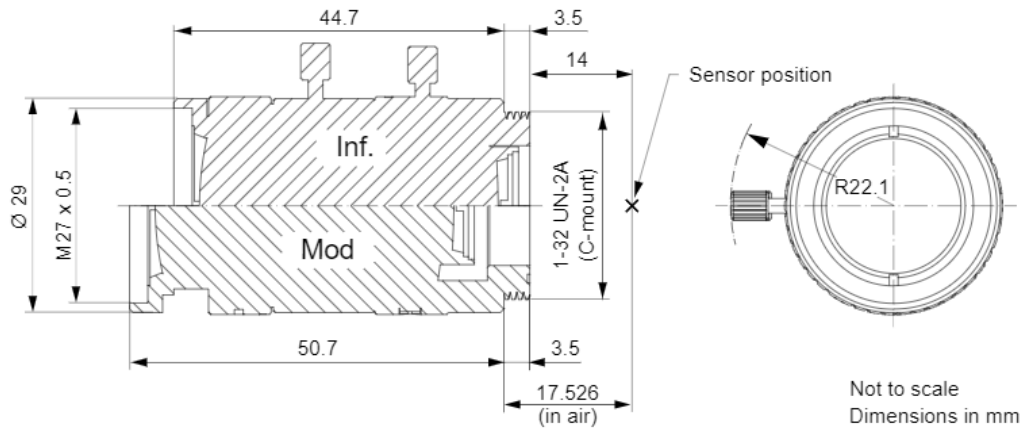
Mechanical Specifications

Flange Back	17.526 mm +0/-0.2 mm
Mount	C-mount
Weight	Approx. 83 g
Focus/Iris Operation	Manual

General Specifications

Focal Length f'	48 mm \pm 5 %
Aperture Range	F2.8–F16
Image Circle	11 mm (2/3" format)
Focus Range	0.4 m to infinity
Optimum Working Distance	0.4 m
Optimum Magnification	NA
Relative Illumination at Full Aperture	72%
Resolution (25 % MTF, Center, Full Aperture)	Designed for 147 LP/mm (3.40 μ m pixel size)
Resolution at 5.8 mm Image Diagonal (80 % of a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	NA
Optical Distortion	Typical -0.12%
Angle of View, 1/2.5" Format (using a Basler acA2500-14gm/c camera or a Basler acA2500-14um/c camera)	Horizontal: 8.2° Vertical: 6.1°
Angle of View, 1/3" Format (using a Basler acA1300-30gm/c camera or a Basler acA1300-30um/c camera)	Horizontal: 10.1° Vertical: 7.6°
Wavelength Range	400–700 nm
Pupil Magnification, β^*P	NA
Chief Ray Angle, CRA	NA
Front Focal Length, sF	NA
Back Focal Length, $s'F$	22.88 mm
Principal Point Separation, HH'	NA
Entrance Pupil Position, sEP	NA
Exit Pupil Position,	NA

Lens Dimensions



Resolution versus Image Height

