

Basler Lenses



- Basler Original Equipment 5 MP lens - optimized for 1/2.5" sensors with high resolution of 2.2 μm [230 lp/mm]
- Basler 2 MP lens - good fit for sensors up to 2/3"
- Best match for sensor technologies with small and large pixel pitch
- Ideal performance for versatile machine vision applications
- Best price/performance ratio

TECHNICAL DETAILS



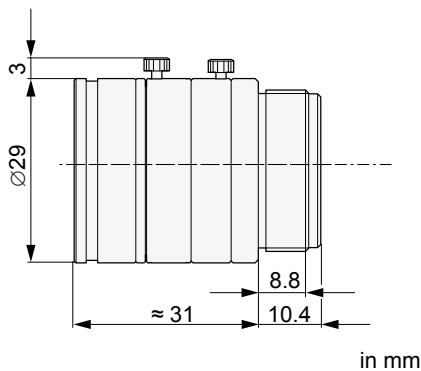
Basler Lenses 1/2.5"	C125-0418-5M	C125-0618-5M	C125-0818-5M	C125-1218-5M	C125-1620-5M	C125-2522-5M
Specifications						
Maximum image circle	1/2.5" (7.3mm)					
Mount	C-Mount					
Focal length	4 mm	6 mm	8 mm	12 mm	16 mm	25 mm
Maximum relative aperture	1:1.8			1:2.0		1:2.2
Iris range	F1.8 - F22				F2.0 - F22	F2.2 - F22
Focus range	0.1m - ∞	0.1m - ∞	0.1m - ∞	0.2m - ∞	0.2m - ∞	0.2m - ∞
Focus control	manual					
Iris control	manual					
Angle of view, horizontal/vertical, 1/2.5"	76.4°/58.5°	53.1°/40.1°	39.6°/29.9°	27.0°/20.3°	20.3°/15.3°	13.0°/9.8°
Angle of view, horizontal/vertical, 1/3"	66.0°/49.9°	45.5°/34.1°	33.9°/25.4°	23.1°/17.2°	17.3°/12.9°	11.1°/8.3°
Wavelength range	400-700 nm					
TV Distortion	-5,9%	-3,3%	-1,6%	-0,7%	-0,3%	-0,2%
Filter size	M46×0.75*	M35.5×0.5*		M25.5×0.5		
Dimensions	31.3×Ø29mm	30.6×Ø29mm	29.8×Ø29mm	40.8×Ø29mm	41.2×Ø29mm	41.0×Ø29mm
Weight	55g		65g		60g	
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)					

Specifications are subject to change without prior notice. Latest specifications can be found on our website www.baslerweb.com/Basler-Lenses

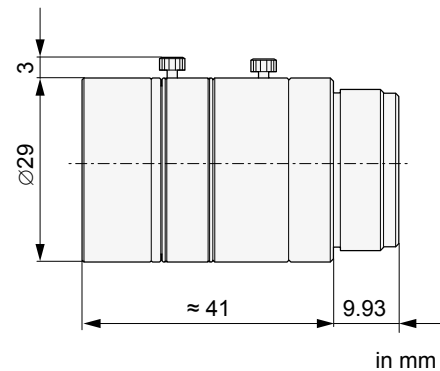
* filter adapter required

Dimensions (in mm)

Basler Lens with f = 4 mm, 6 mm, 8 mm



Basler Lens with f = 12 mm, 16 mm, 25 mm



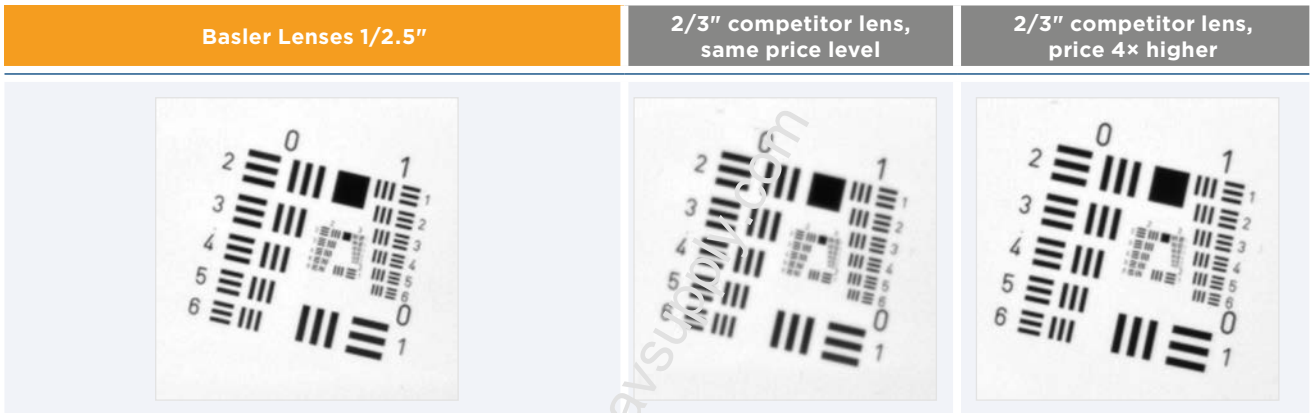
TECHNICAL DETAILS

Comparison Images

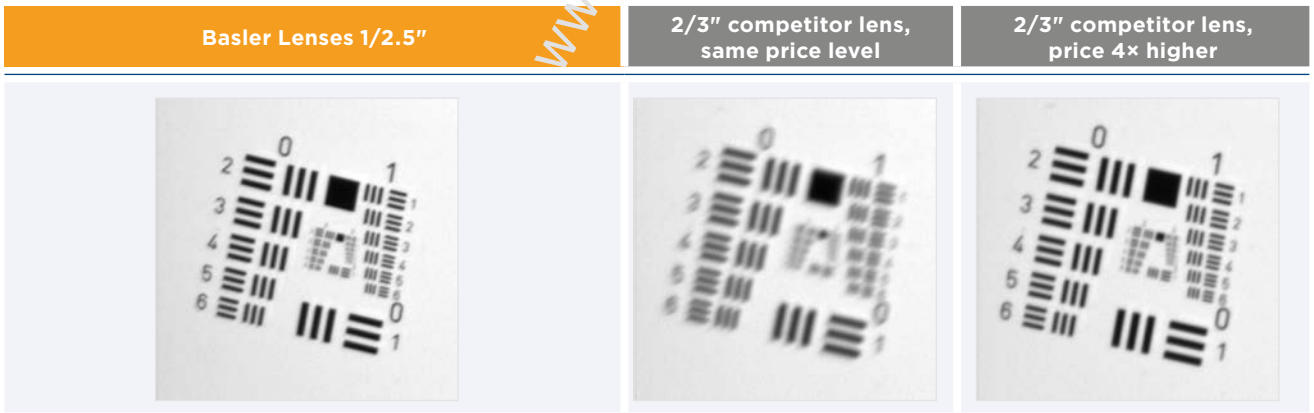
The following test images show the resolution of the Basler Lens compared to two competitor lenses.

Why is resolution such an important indicator for the performance of a lens? The resolution controls the amount of detail visible in the image. To achieve a high-quality image throughout the entire field of view, the resolution must be excellent from center to corners.

CENTER OF 1/2.5" SENSOR



CORNER OF 1/2.5" SENSOR



Test set-up:

Camera: acA2500-14gm (sensor: 5MP - MT9P031, pixel size 2.2 μ m)
 Focal length of lenses: 8 mm
 Test conditions: F# 2.8, exposure time 2.8 ms

TECHNICAL DETAILS



	PRELIMINARY	PLANNED					
Basler Lenses 2/3"	C23-0816-2M	C23-1216-2M*	C23-1616-2M*	C23-2518-2M	C23-3520-2M	C23-5025-2M	
Specifications							
Maximum image circle	2/3" (11 mm)						
Mount	C-Mount						
Focal length	-	12mm	16 mm	25mm	35mm	50mm	
Maximum relative aperture		1:1.6		1:1.8	1:2.0	1:2.5	
Iris range	-	F1.6 - F16	F1.6 - F22	F1.8 - F16	F2.0 - F16	F2.6 - F32	
Focus range	-	0.1m - ∞	0.2m - ∞	0.3m - ∞	0.35m - ∞	0.3m - ∞	
Focus control	manual						
Iris control	manual						
Angle of view horizontal/vertical, 2/3"	-	39°/30°	29.5°/22.6°	19°/14°	14°/10°	9.7°/7.3°	
Angle of view horizontal/vertical, 1/1.8"	-	32.2°/24.4°	24.5°/18°	15.4°/11.6°	11.5°/8.7°	7.9°/5.9°	
Wavelength range	400-700 nm						
TV distortion	-	-0.21%	-0.5%	-0.25%	-0.19%	-0.04%	
Filter size	-	M27×0.5	M27×0.5	M27×0.5	M27×0.5	M30.5×0.5	
Dimensions	-	39.2×Ø35mm	42.4×Ø35mm	38.4×Ø35mm	39.2×Ø35mm	65.7×Ø35mm	
Weight	-	97g	104g	83g	81g	110g	
Operating temperature	0°C to 50°C (32°F to 122°F)						

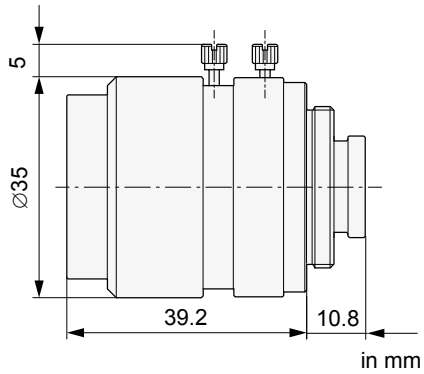
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* vignetting visible

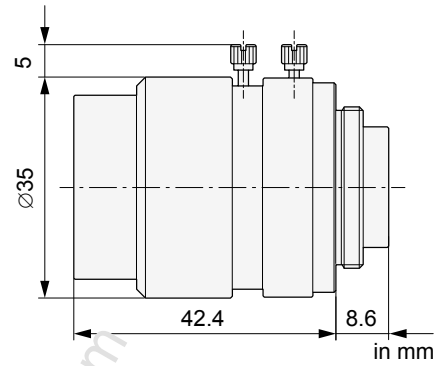
TECHNICAL DETAILS

Dimensions (in mm)

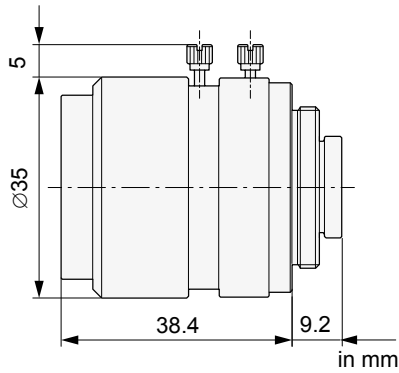
Basler Lens with f = 12 mm



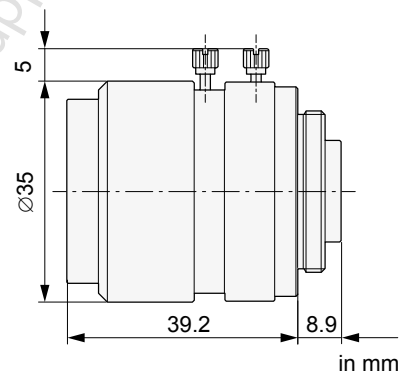
Basler Lens with f = 16 mm



Basler Lens with f = 25 mm



Basler Lens with f = 35 mm



Basler Lens with f = 50 mm

