

MVL-MF0824M-5MPE

2/3" 8mm 5MP FA LENS

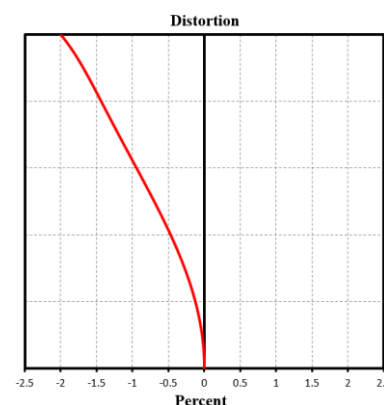
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



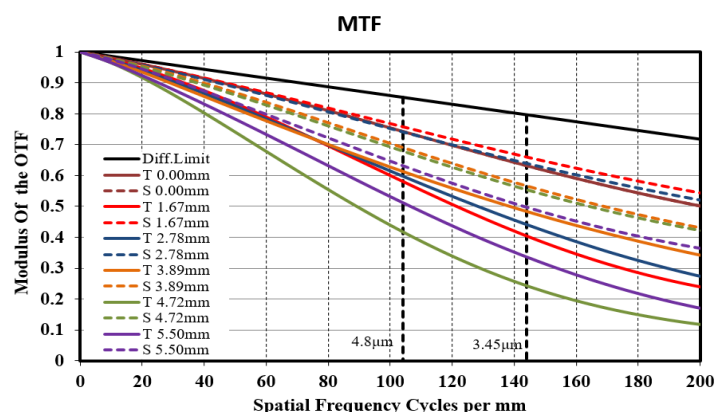
Key Feature

- High resolution and consistency of image clarity.
- Lower distortion and higher relative illumination rate.
- Achromatic optical system design and better imaging performance with color camera.
- Excellent performance at high and low temperature.
- Good optical performance at ultra-short working distance.

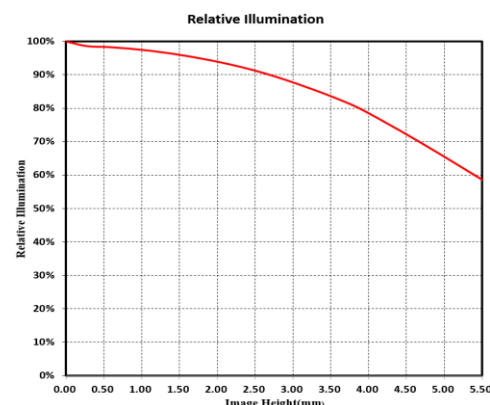
Distortion



MTF



Relative Illumination

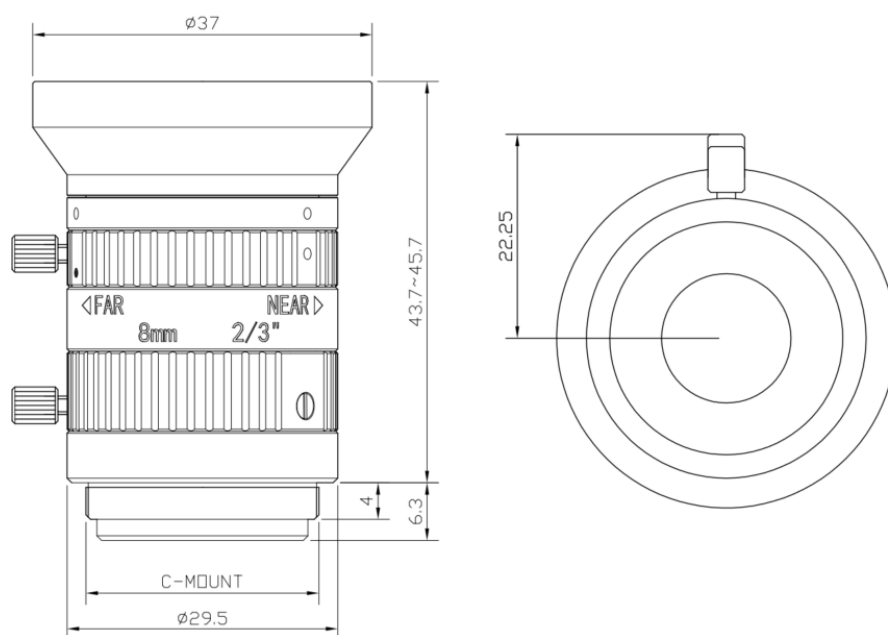


Note: The above curves are the simulate results based on F2.4, $\beta=-0.025$, WD=300 mm.

Specification

Parameter	Model	MVL-MF0824M-5MPE
	Fixed focal length, Manual iris, 5MP, FA Lens	
Performance		
Focal length	8 mm	
F-number	F2.4 to F16	
Image size	Φ11 mm (2/3")	
TV distortion	−0.90%	
Min. object distance	0.1 m	
Field of view	D (11.1 mm): 70.6° H (8.45 mm): 56.4° V (7.07 mm): 48.3°	
Mechanical		
Iris control	Manual	
Focus control	Manual	
Filter thread	M35.5 × 0.5	
Mount	C-mount	
Flange focal length	17.526 mm	
Dimension	Φ37 mm × 43.7 mm to 45.7 mm (Φ1.5" × 1.7" to 1.8")	
Weight	87.3 g (0.2 lb.)	
Temperature	−10 °C to 50 °C (14 °F to 122 °F)	
General		
Certification	RoHS 2.0	

Dimension



Unit: mm

Field of View

Ring thickness (mm)	Working distance (mm)		Magnification	Field of view (mm)					
				2/3"		1/1.8"		1/2"	
				H (8.45mm)	V (7.07mm)	H (7.38mm)	V (4.92mm)	H (6.22mm)	V (4.67mm)
2	Near	8.3	-0.278	29.0	23.8	24.8	16.1	20.5	15.1
	Far	19.2	-0.206	39.2	32.4	33.1	21.6	27.2	20.2
1	Near	25.4	-0.172	47.8	39.5	40.9	26.8	33.9	25.2
	Far	58.8	-0.102	81.1	67.3	67.6	44.5	55.5	41.4
0	100		-0.064	129.9	108.1	112.9	74.6	94.8	70.8
	150		-0.046	183.0	152.4	159.1	105.3	133.7	99.9
	200		-0.036	235.9	196.6	205.3	135.9	172.5	129.0
	250		-0.029	288.8	240.8	251.4	166.6	211.4	158.1
	300		-0.025	341.8	285.1	297.6	197.3	250.2	187.2
	350		-0.021	394.7	329.3	343.8	227.9	289.1	216.3
	400		-0.019	447.7	373.5	390.0	258.6	328.0	245.4
	450		-0.017	500.6	417.8	436.2	289.3	366.8	274.5
	500		-0.015	553.6	462.0	482.3	319.9	405.7	303.6
	550		-0.014	606.6	506.2	528.5	350.6	444.6	332.7
	600		-0.013	659.5	550.5	574.7	381.3	483.4	361.8
	650		-0.012	712.5	594.7	620.9	411.9	522.3	390.9
	700		-0.011	765.4	638.9	667.1	442.6	561.2	420.0
	800		-0.010	871.3	727.4	759.4	503.9	638.9	478.2
	900		-0.009	977.3	815.9	851.8	565.3	716.6	536.4
	1000		-0.008	1083.2	904.4	944.5	626.8	794.1	594.5