

MVL-MF1224M-5MPE

2/3" 12mm 5MP FA LENS

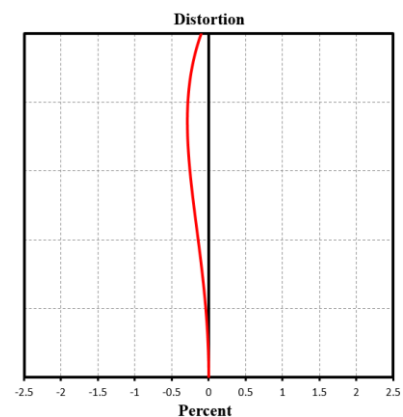
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



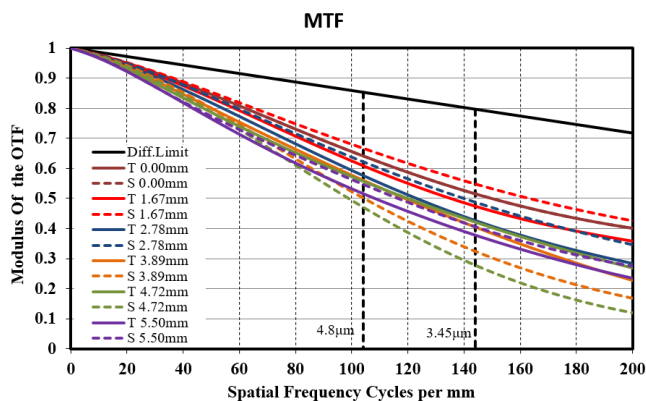
Key Features

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

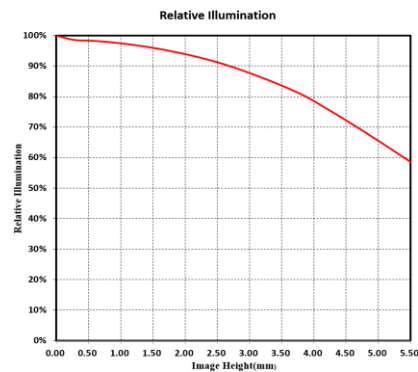
Distortion



MTF



Relative Illumination



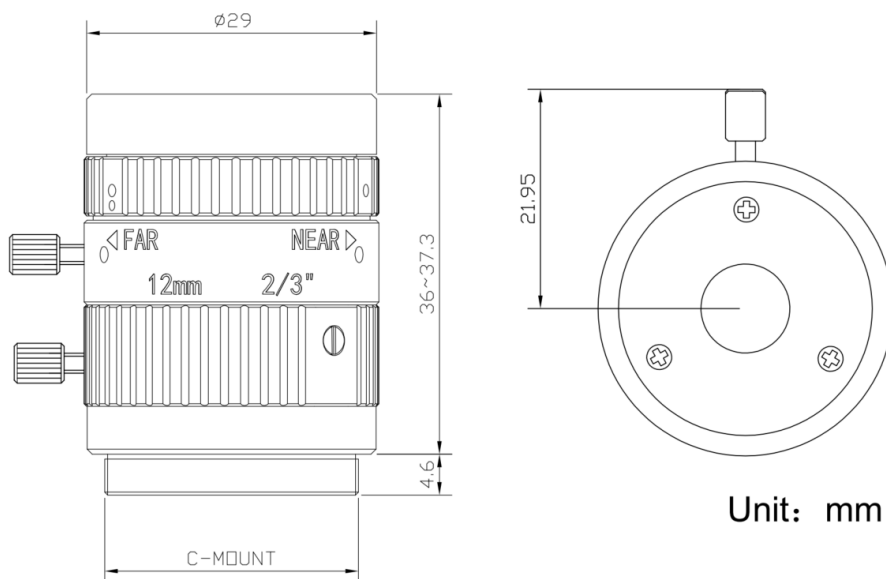
Note: The above curves are the simulate results based on F2.4, $\beta=-0.039$, WD=300 mm



Specification

Model	MVL-MF1224M-5MPE
Parameter	Fixed focal length, Manual iris, 5MP, FA Lens
Performance	
Focal Length	12 mm
F-Number	F2.4 ~ F16
Image Size	Φ11 mm (2/3")
Distortion	-0.16%
Minimum Operation Distance	0.25 m
Field of View	D (11.1 mm): 49.67° H (8.45 mm): 39.09° V (7.07 mm): 33.08°
Mechanical	
Iris Control	Manual
Focus Control	Manual
Filter Thread	M27 × 0.5
Mount	C-Mount
Flange Back Length	17.526 mm
Dimension	Φ29 × 36~37.3 mm
Weight	71.6 g
Temperature	-10 ~ 50°C
General	
Certification	RoHS2.0

Dimension



Unit: mm

Field of View

Extension (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)
10	near	2.1	-0.937	9.2	7.7	8.0	5.3	6.7	5.0
	far	3.8	-0.829	10.4	8.7	9.1	6.0	7.6	5.7
5	near	12.4	-0.522	16.5	13.7	14.4	9.5	12.1	9.0
	far	18.5	-0.413	20.8	17.3	18.1	12.0	15.2	11.4
2	near	33.5	-0.273	31.4	26.2	27.4	18.1	23.0	17.2
	far	62.6	-0.165	51.9	43.3	45.2	30.0	38.0	28.5
1	near	52.7	-0.190	45.0	37.5	39.2	26.0	33.0	24.7
	far	134.9	-0.083	102.8	85.9	89.7	59.6	75.5	56.6
0		150	-0.079	115.0	92.5	99.0	63.8	80.0	60.0
		200	-0.059	151.7	120.0	128.7	86.0	106.7	80.0
		250	-0.047	188.3	147.5	158.3	108.3	133.3	100.0
		300	-0.039	220.0	183.0	191.0	127.0	160.0	120.0
		350	-0.033	256.7	212.0	221.0	147.0	186.7	140.0
		400	-0.029	293.3	241.0	252.0	168.0	213.3	160.0
		450	-0.026	330.0	271.0	283.0	188.0	240.0	180.0
		500	-0.024	359.0	300.0	313.0	209.0	266.7	200.0
		550	-0.022	394.0	330.0	344.0	229.0	293.3	220.0
		600	-0.020	429.0	359.0	375.0	250.0	320.0	240.0
		650	-0.018	464.0	388.0	405.0	270.0	346.7	260.0
		700	-0.017	499.0	418.0	436.0	290.0	367.0	280.0
		800	-0.015	569.0	477.0	497.0	331.0	419.0	314.0
		900	-0.013	640.0	535.0	559.0	372.0	471.0	353.0
	1000	-0.012	710.0	594.0	620.0	413.0	523.0	392.0	

HIKROBOT

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