

MVL-MF5028M-5MPE 2/3" 50mm 5MP FA LENS

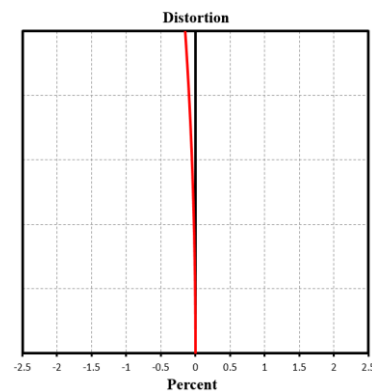
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



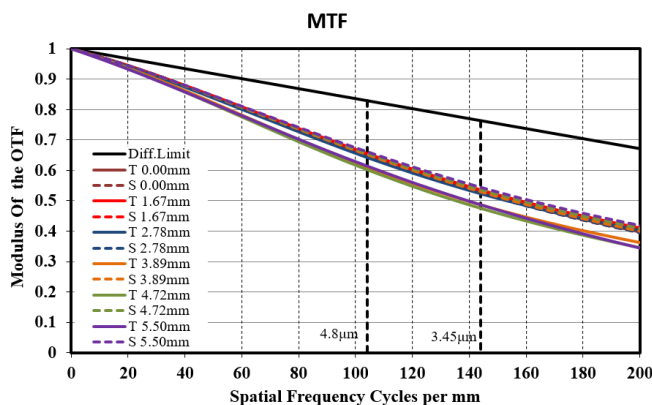
Key Features

- 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

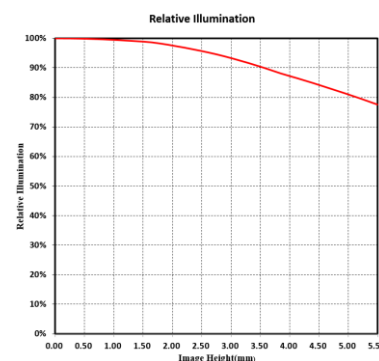
Distortion



MTF



Relative Illumination



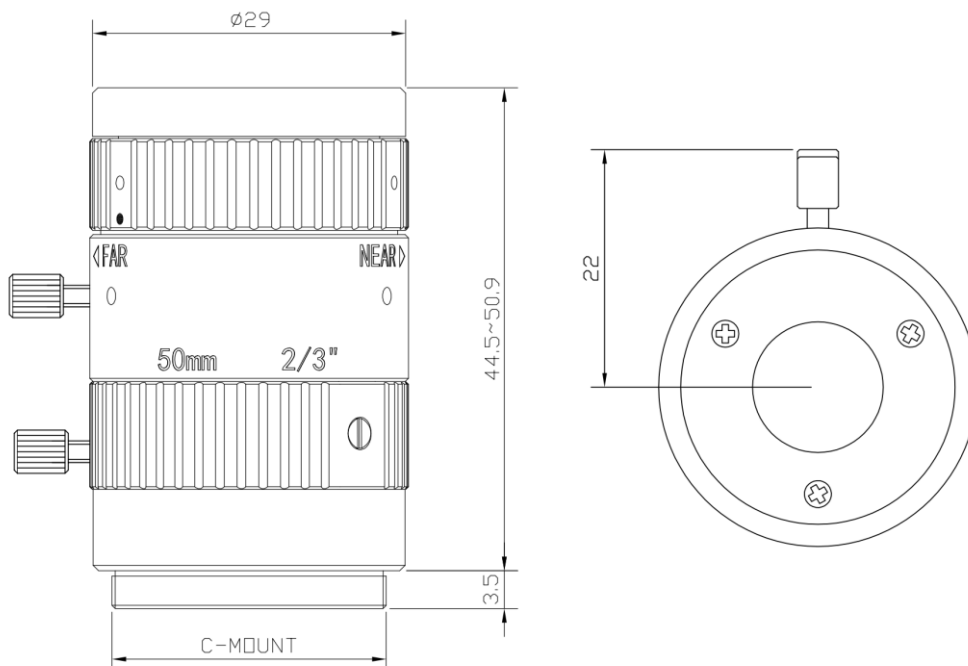
Note: The above curves are the simulate results based on F2.8, $\beta=-0.126$, WD=400 mm



Specification

Model	MVL-MF5028M-5MPE
Parameter	Fixed focal length, Manual iris, 5MP, FA Lens
Performance	
Focal Length	50 mm
F-Number	F2.8 ~ F16
Image Size	Φ11 mm (2/3")
Distortion	0.08%
Minimum Operation Distance	0.4 m
Field of View	D (11.1 mm): 12.83° H (8.45 mm): 9.86° V (7.07 mm): 8.26°
Mechanical	
Iris Control	Manual
Focus Control	Manual
Filter Thread	M27 × 0.5
Mount	C-Mount
Flange Back Length	17.526 mm
Dimension	Φ29 × 44.5~50.9 mm
Weight	80.9 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)
30	near	82.1	-0.750	11.2	9.4	9.8	6.5	8.3	6.2
	far	94.9	-0.630	13.5	11.3	11.8	7.9	9.9	7.5
25	near	92.4	-0.650	13.1	10.9	11.4	7.6	9.6	7.2
	far	110.1	-0.520	16.2	13.6	14.1	9.4	11.9	8.9
20	near	106.6	-0.540	15.6	13.0	13.6	9.1	11.5	8.6
	far	133.0	-0.420	20.3	16.9	17.7	11.8	14.9	11.2
15	near	127.5	-0.440	19.3	16.1	16.8	11.2	14.2	10.6
	far	171.1	-0.310	27.0	22.6	23.6	15.7	19.8	14.9
10	near	161.6	-0.340	25.3	21.2	22.1	14.7	18.6	14.0
	far	247.3	-0.210	40.4	33.8	35.3	23.5	29.7	22.3
5	near	226.5	-0.231	36.7	30.7	32.1	21.4	27.0	20.3
	far	476.2	-0.105	80.6	67.4	70.4	46.9	59.3	44.5
2	near	304.5	-0.168	50.5	42.2	44.1	29.4	37.1	27.9
	far	1163.4	-0.042	201.3	168.5	175.8	117.3	148.2	111.3
1	near	345.5	-0.147	57.7	48.2	50.3	33.5	42.4	31.8
	far	2308.8	-0.021	402.3	336.8	351.5	234.5	296.3	222.6
0		400	-0.126	68.0	54.5	57.3	42.9	50.9	38.2
		450	-0.111	79.2	60.2	64.8	48.6	57.6	43.2
		500	-0.100	88.3	69.2	72.3	54.2	64.2	48.2
		550	-0.090	97.5	75.1	79.8	59.8	70.9	53.2
		600	-0.083	106.7	82.0	87.3	65.4	77.6	58.2
		650	-0.076	115.8	88.9	94.8	71.1	84.2	63.2
		700	-0.070	125.0	96.7	102.3	76.7	90.9	68.2
		800	-0.061	143.3	110.2	117.3	87.9	104.2	78.2
		900	-0.054	155.0	127.7	132.3	99.2	117.6	88.2
		1000	-0.049	172.6	144.4	150.7	100.5	127.1	95.4

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