

MVL-KF5028M-12MP**1.1" 50mm 12MP FA LENS**

FA series 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, high definition of the whole image
- Low distortion, high illumination relative
- Excellent mechanism design, improve the shock resistance and high/low temperature stability
- Multilayer wide band coating, ensuring high transmittance of visible and near infrared light
- Support ultra short working distance, maintaining excellent optical properties at different object distances

Order Model

MVL-KF5028M-12MP

Specification

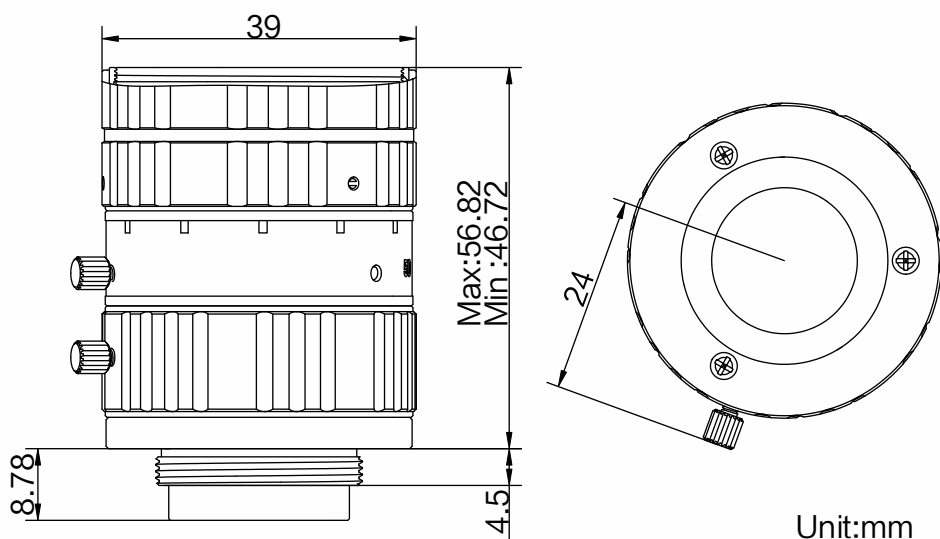
Model		MVL-KF5028M-12MP	
Parameter		Fixed focal length, Manual iris, 12MP, FA Lens	
Focal Length		50mm	C-Mount
F-Number		F2.8~F16	Flange Back Length
Image Size		Φ17.6mm(1.1")	Filter Thread
Optical Distortion		-0.05%	Minimum Operation Distance
Control	Iris	Manual	Dimension
	Focus	Manual	
Operating Temperature		-10~50°C	Weight
Angle of View		1.1"	D (17.6mm)
			H (14.08mm)
			V (10.56mm)



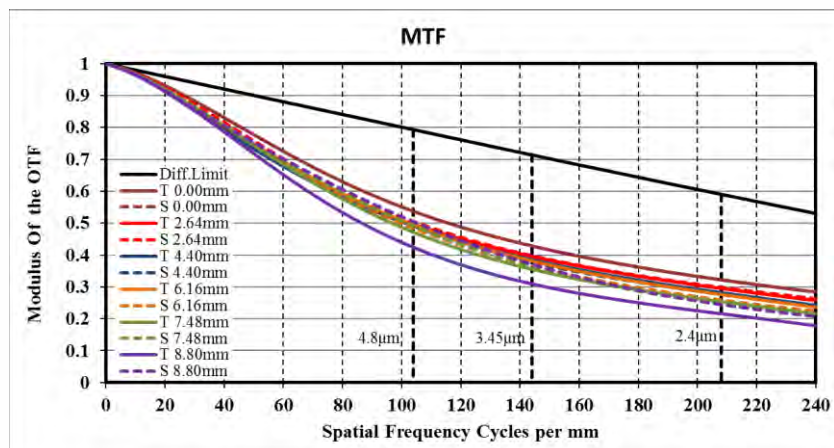
Field of View

Working Distance (mm)	Magnification	Extension (mm)	Field of View (mm)					
			1.1"		1"		2/3"	
			(14.14mm×10.35mm)		(12.45mm×9.83mm)		(8.45mm×7.07mm)	
			H	V	H	V	H	V
50	-1.179	48	12.00	8.78	10.56	8.34	7.17	6.00
75	-0.750	27	18.86	13.81	16.61	13.11	11.27	9.43
100	-0.546	18	25.88	18.94	22.79	17.99	15.47	12.94
150	-0.355	9	39.82	29.14	35.06	27.68	23.79	19.91
200	-0.262	5	53.90	39.46	47.46	37.47	32.21	26.95
250	-0.209		67.73	49.58	59.64	47.08	40.48	33.87
300	-0.173		81.57	59.71	71.82	56.70	48.75	40.79
350	-0.147		96.23	70.44	84.73	66.90	57.51	48.12
400	-0.128		110.90	81.17	97.64	77.09	66.27	55.45
450	-0.113		125.56	91.91	110.55	87.29	75.04	62.78
500	-0.101		140.23	102.64	123.47	97.48	83.80	70.12
550	-0.091		154.90	113.38	136.39	107.68	92.57	77.45
600	-0.083		169.57	124.12	149.30	117.88	101.33	84.79
650	-0.077		184.24	134.86	162.22	128.08	110.10	92.12
700	-0.071		198.91	145.59	175.13	138.27	118.87	99.46
750	-0.066		213.58	156.33	188.05	148.47	127.63	106.79
800	-0.062		228.25	167.07	200.97	158.67	136.40	114.13
850	-0.058		242.92	177.81	213.88	168.87	145.17	121.46
900	-0.055		257.59	188.54	226.80	179.07	153.93	128.80
950	-0.052		272.26	199.28	239.72	189.27	162.70	136.13
1000	-0.049		286.93	210.02	252.63	199.46	171.47	143.47

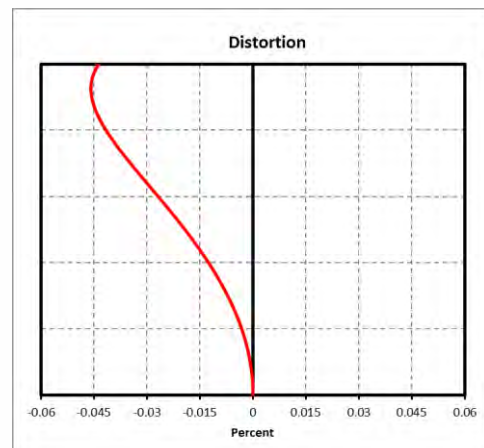
Dimension



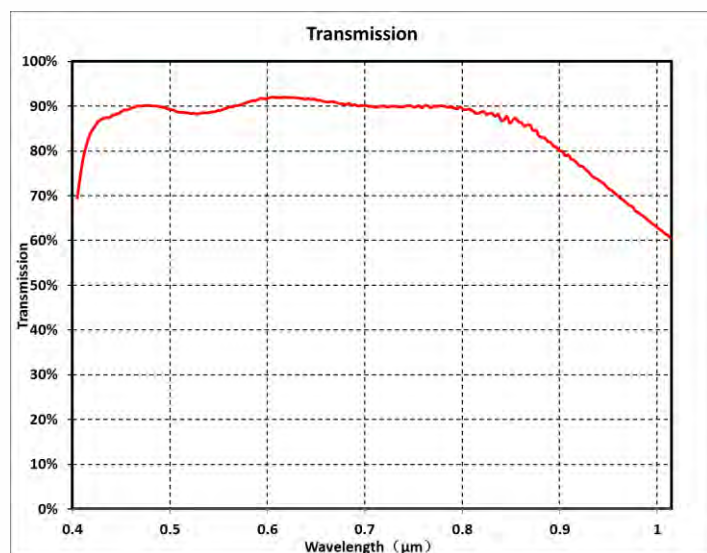
MTF



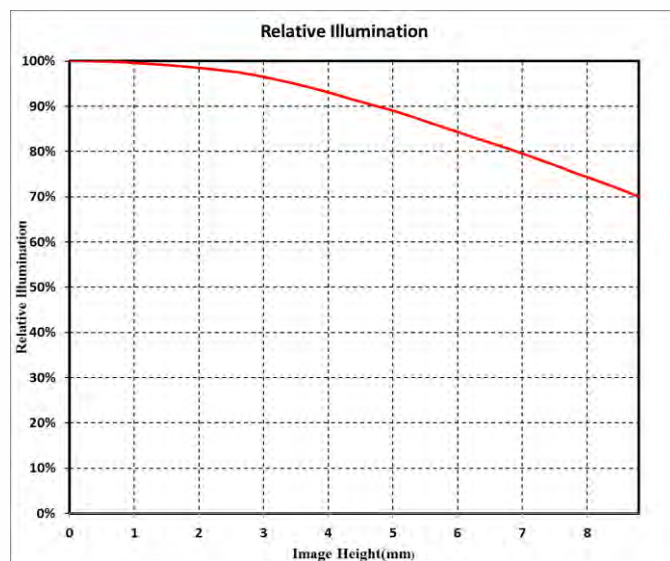
Distortion



Transmission



Relative Illumination



Note: The above curves are the simulate results based on F2.8, $\beta=-0.128$, WD=400 mm.

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