

MVL-KF5028M-12MPE

1.1" 50mm 12MP FA LENS

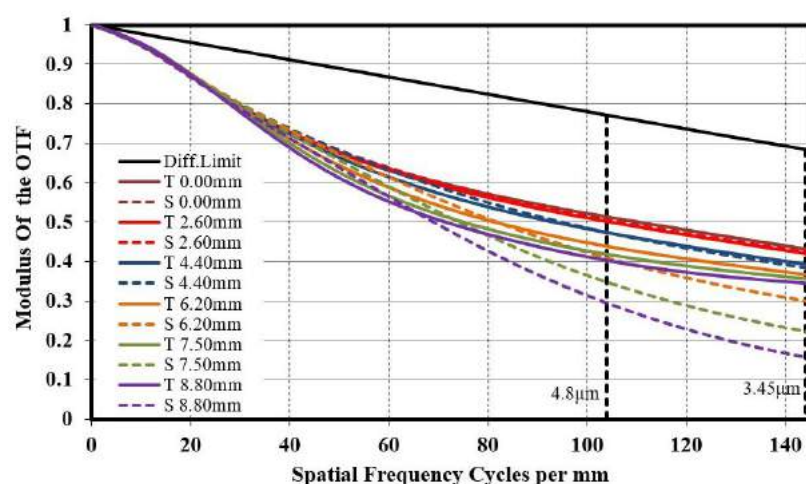
KF-E series FA Lens are optimized for machine vision light sources and sensor, with high resolution, excellent image quality, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications and ideal for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



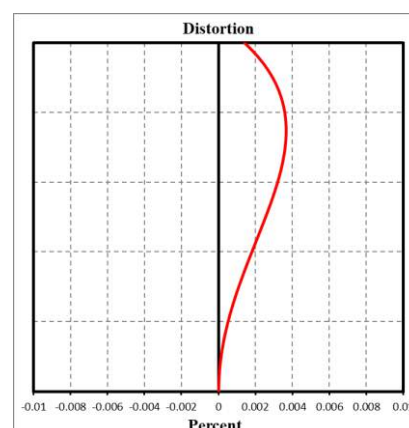
Key Features

- Ultra high resolution and consistency of image clarity
- Lower distortion
- Super high image peripheral brightness ratio
- Excellent optical properties are maintained at different object distances

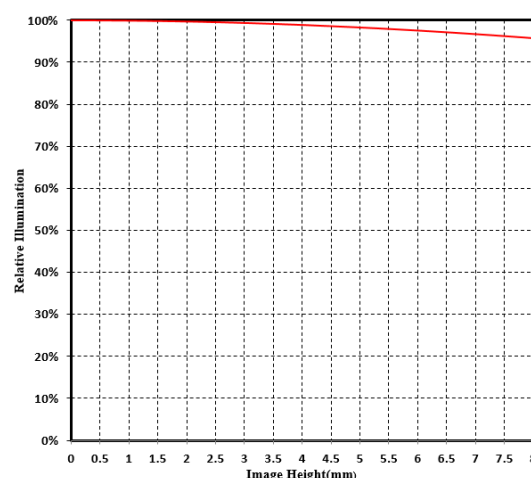
MTF



Distortion



Relative Illumination



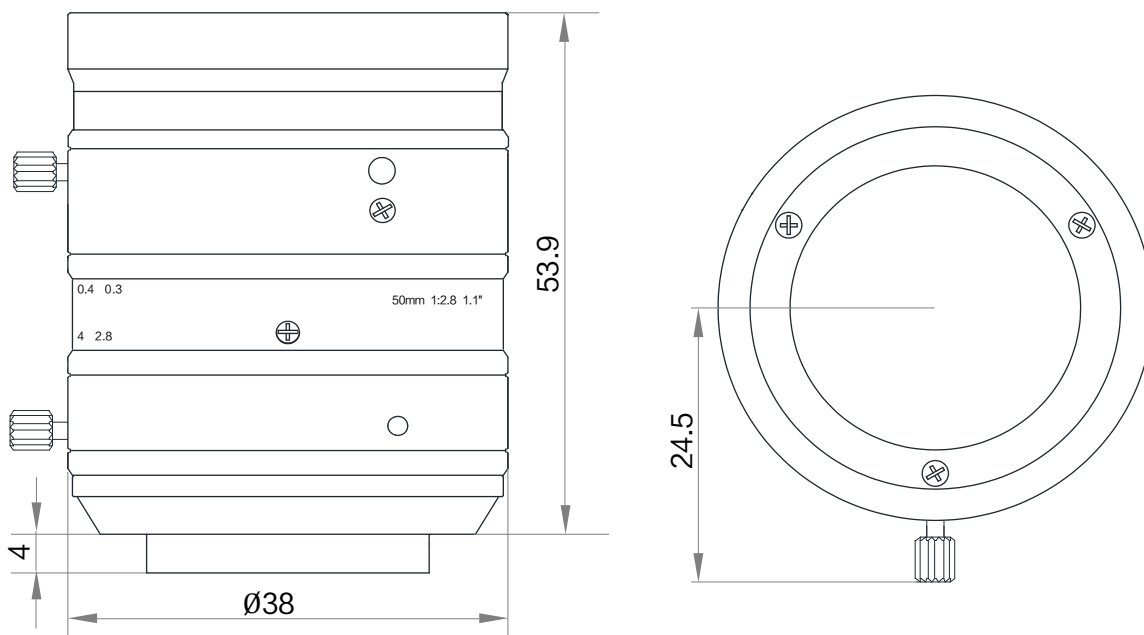
Note: The above curves are the simulate results based on F2.8, $\beta = -0.104$, WD=500 mm.



Specification

Model		MVL-KF5028M-12MPE
Parameter		Fixed focal length, Manual iris, 12MP, FA lens
Performance		
Focal Length	50 mm	
F-Number	F2.8 ~ F22	
Image Size	Φ17.6 mm(1.1’')	
Distortion	0.04%	
Minimum Operation Distance	0.3 m	
Field of View	D (17.52mm) : 19.9° H (14.14mm) : 15.9° V (10.35mm) : 11.9°	
Mechanical		
Iris Control	Manual	
Focus Control	Manual	
Filter Thread	M35.5×0.5	
Mount	C-Mount	
Flange Back Length	17.526 mm	
Dimension	Φ38×53.9 mm	
Weight	121 g	
Temperature	-10 ~ 50℃	
General		
Certification	RoHS2.0	

Dimension



Unit: mm

Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)					
				1.1' ' (14.14mm×10.35mm)		1' ' (12.45mm×9.83mm)		2/3' ' (8.45mm×7.07mm)	
				H	V	H	V	H	V
15	near	125.05	-0.479	29.50	21.60	26.70	20.40	18.40	13.80
	far	126.83	-0.471	30.00	21.97	27.20	20.83	18.70	14.03
10	near	152.28	-0.380	37.20	27.24	33.70	25.80	23.20	17.40
	far	155.48	-0.370	38.10	27.90	34.50	26.40	23.70	17.78
5	near	199.37	-0.280	50.50	36.99	45.80	35.10	31.50	23.63
	far	205.72	-0.270	52.30	38.30	47.30	36.20	32.50	24.38
2	near	248.15	-0.220	64.30	47.10	58.20	44.10	40.00	30.00
	far	258.43	-0.210	67.20	49.20	60.90	46.40	41.80	31.35
1	near	270.8	-0.200	70.70	51.80	64.00	44.90	44.00	33.00
	far	283.55	-0.190	74.30	54.40	67.30	51.50	46.30	34.73
0	300		-0.178	79.60	58.26	69.94	55.22	47.47	39.72
	350		-0.151	93.83	68.68	82.45	65.10	55.96	46.82
	400		-0.132	107.34	78.57	94.32	74.47	64.02	53.56
	450		-0.116	122.14	89.40	107.33	84.74	72.84	60.95
	500		-0.104	136.23	99.72	119.71	94.52	81.25	67.98
	550		-0.095	149.45	109.40	131.33	103.69	89.14	74.58
	600		-0.087	163.61	119.75	143.76	113.51	97.58	81.64
	650		-0.079	179.35	131.27	157.59	124.43	106.96	89.49
	700		-0.074	191.46	140.14	168.24	132.84	114.19	95.54
	800		-0.067	211.47	154.79	185.82	146.72	126.12	105.52
	900		-0.057	247.70	181.31	217.66	171.85	147.73	123.60
	1000		-0.052	275.11	201.37	241.75	190.87	164.08	137.28

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