

MVL-KF5028M-12MPE

1.1" 50mm 12MP FA LENS

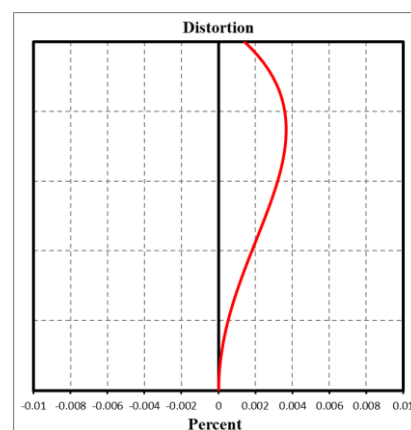
KF-E series FA Lens are optimized for machine vision light sources and sensor, with high resolution, excellent image quality, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications and ideal for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



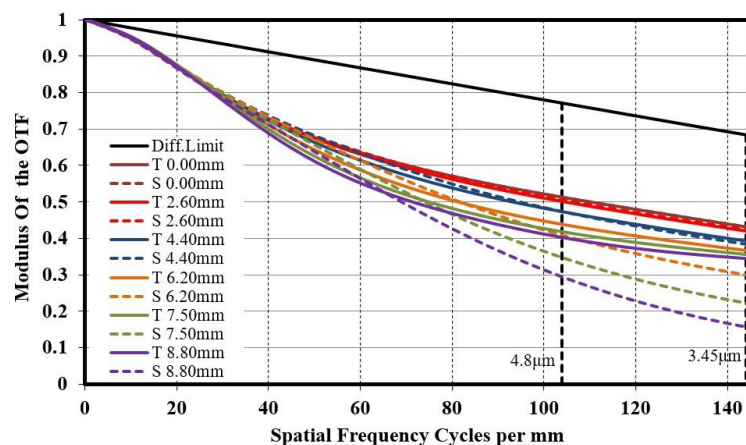
Key Features

- 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

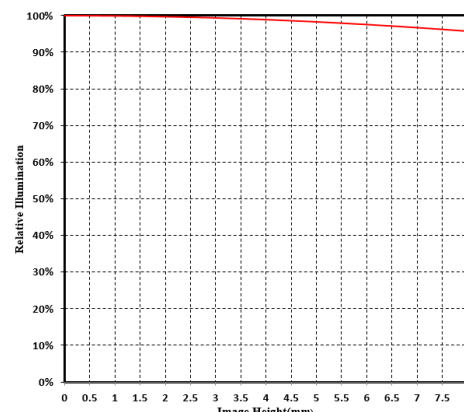
Distortion



MTF



Relative Illumination

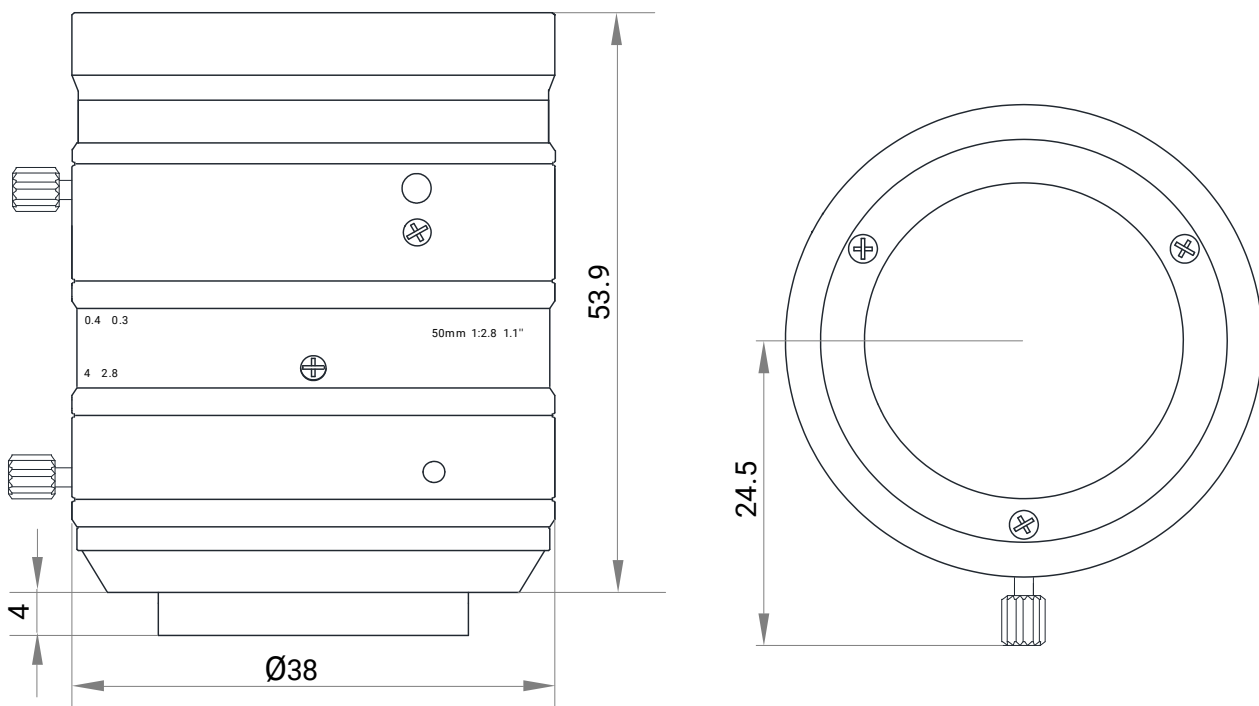


Note: The above curves are the simulate results based on F2.8, $\beta=-0.104$, WD=500 mm.

Specification

Parameter	Model	MVL-KF5028M-12MPE
		Fixed focal length, Manual iris, 12MP, FA lens
Performance		
Focal length		50 mm
F-number		F2.8 to F22
Image size		Ø17.6 mm (1.1")
Distortion		0.04%
Minimum object distance		0.3 m
Field of view		D (17.52 mm): 19.9° H (14.14 mm): 15.9° V (10.35 mm): 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		Ø38 mm × 53.9 mm (Ø1.5" x 2.1")
Weight		121 g (0.3 lb.)
Temperature		-10°C to 50°C (14 °F to 122 °F)
General		
Certification		RoHS 2.0

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	125.35	-0.482	29.32	21.46	25.81	20.38	17.52	14.66
	193.13	-0.296	47.77	34.97	42.06	33.21	28.55	23.89
10	152.68	-0.391	36.16	26.47	31.84	25.14	21.61	18.08
	279.23	-0.197	71.63	52.43	63.07	49.80	42.81	35.82
5	199.88	-0.280	50.50	36.96	44.46	35.11	30.18	25.25
	537.93	-0.099	143.41	104.97	126.27	99.70	85.70	71.70
2	249.24	-0.219	64.57	47.26	56.85	44.89	38.58	32.28
	1315.42	-0.039	358.88	262.69	315.99	249.49	214.47	179.44
1	272.42	-0.199	71.06	52.01	62.56	49.40	42.46	35.53
	2614.12	-0.020	717.77	525.38	631.98	498.98	428.93	358.88
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