

MVL-KF5024M-25MP
1.2" 50mm 25MP FA LENS

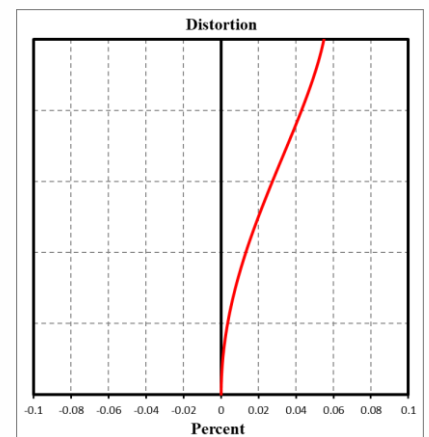
KF-P series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



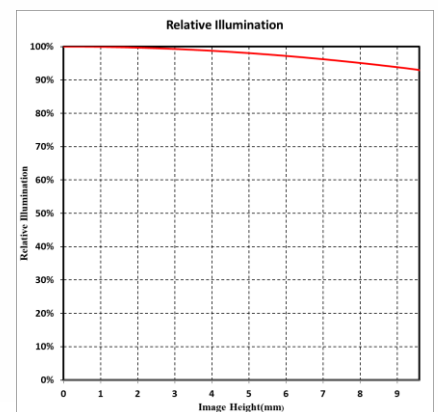
Key Features

- Ultra high resolution and consistency of image clarity
- 1.2" image Format, bigger aperture, lower distortion, Higher illumination relative
- Achromatic optical system design, Better imaging performance with color camera
- Maintain excellent optical properties at different object distances
- Excellent vibration resistance and stability at high and low temperature performance, optical axis shifting within pixel level
- Multilayer and broadband coating design, compatible with visible and near infrared applications

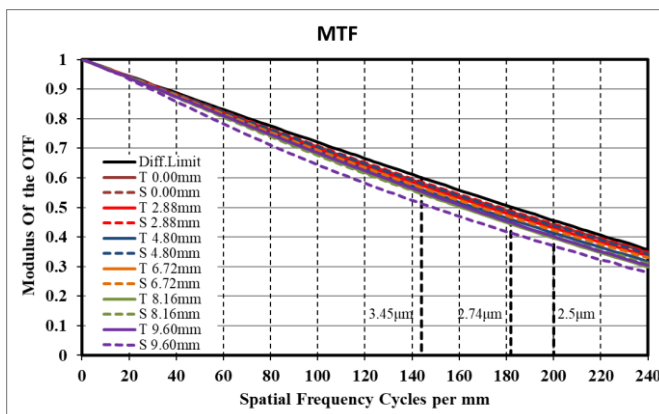
Distortion



Relative Illumination



MTF



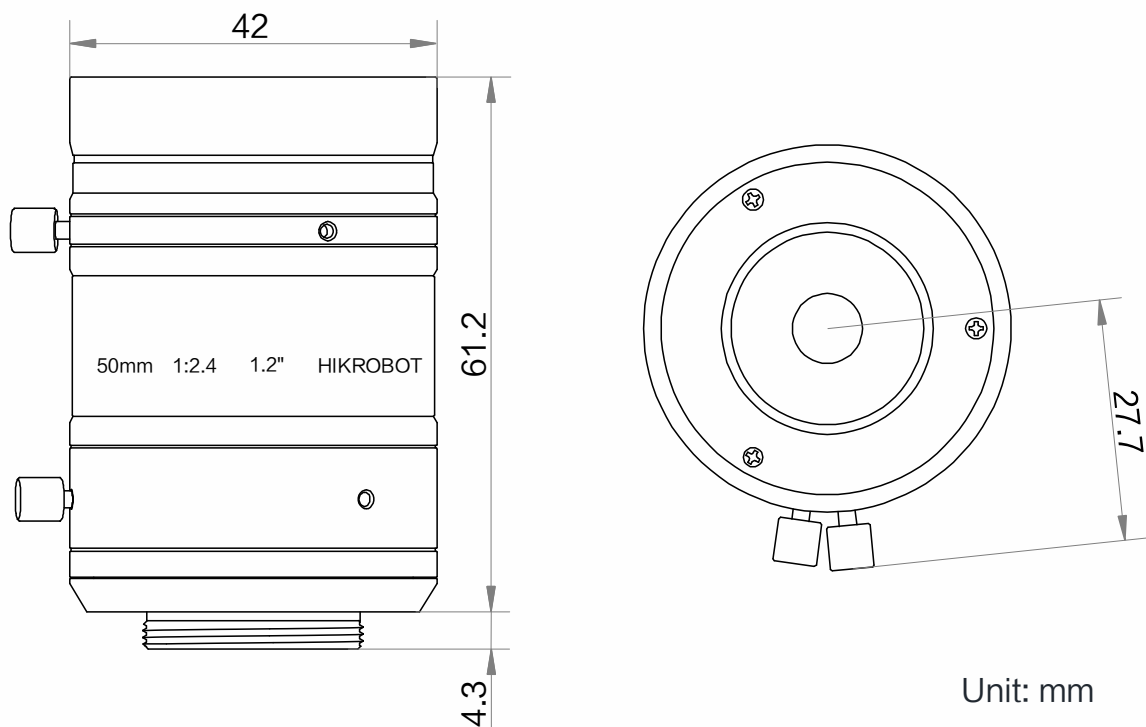
Note: The above curves are the simulate results based on F4, $\beta=-0.098$, WD=500 mm



Specification

Model	MVL-KF5024M-25MP
Parameter	Fixed focal length, Manual iris, 25MP, FA Lens
Performance	
Focal Length	50 mm
F-Number	F2.4 ~ F16
Image Size	Φ19.3 mm(1.2")
Distortion	0.01%
Minimum Operation Distance	0.25 m
Field of View	D (19.30mm) : 20.60° H (14.60mm) : 15.66° V (12.63mm) : 13.57°
Mechanical	
Iris Control	Manual
Focus Control	Manual
Filter Thread	M40.5×0.5
Mount	C-Mount
Flange Back Length	17.526 mm
Dimension	Φ42×61.2 mm
Weight	177 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)					
				1.2"		1.1"		2/3"	
				H(14.6mm)	V(12.63mm)	H(14.14mm)	V(10.35mm)	H(8.45mm)	V(7.07mm)
15	near	98.04	-0.507	13.97	16.71	20.49	28.05	25.03	28.98
	far	136.17	-0.350	20.24	24.21	29.68	40.64	36.26	41.98
10	near	122.59	-0.403	17.57	21.00	25.75	35.24	31.45	36.40
	far	193.59	-0.250	28.34	33.89	41.53	56.84	50.73	58.71
5	near	164.18	-0.299	23.65	28.27	34.65	47.39	42.31	48.95
	far	327.81	-0.150	47.26	56.50	69.22	94.66	84.52	97.75
2	near	206.64	-0.237	29.85	35.69	43.72	59.78	53.38	61.73
	far	552.22	-0.090	78.89	94.29	115.49	157.81	140.95	162.95
1	near	226.22	-0.216	32.72	39.11	47.91	65.49	58.48	67.63
	far	713.01	-0.070	101.54	121.36	148.64	203.05	181.37	209.65
0		250	-0.195	74.78	64.68	72.42	52.99	43.26	36.19
		300	-0.163	89.78	77.66	86.95	63.63	51.95	43.46
		350	-0.140	104.60	90.48	101.30	74.14	60.53	50.65
		400	-0.122	119.30	103.21	115.54	84.58	69.05	57.78
		450	-0.109	133.93	115.86	129.71	94.95	77.53	64.87
		500	-0.098	148.50	128.48	143.83	105.29	85.97	71.93
		550	-0.090	163.04	141.05	157.90	115.60	94.39	78.98
		600	-0.082	177.54	153.60	171.95	125.89	102.79	86.01
		650	-0.076	192.02	166.13	185.97	136.16	111.18	93.03
		700	-0.071	206.48	178.65	199.98	146.42	119.56	100.04
		800	-0.062	235.35	203.64	227.95	166.91	136.29	114.04
		900	-0.055	264.19	228.59	255.88	187.37	152.99	128.02
		1000	-0.050	293.00	253.52	283.78	207.80	169.68	141.99