

MVL-KF5024M-25MP

1.2" 50mm 25MP FA LENS

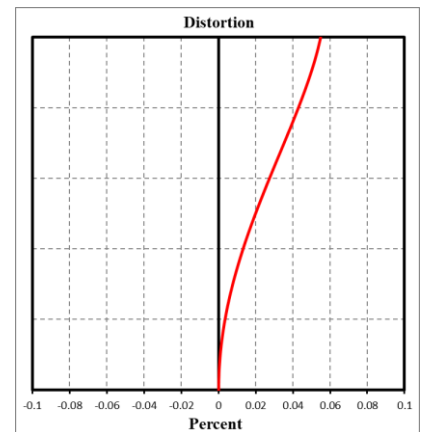
KF-P series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



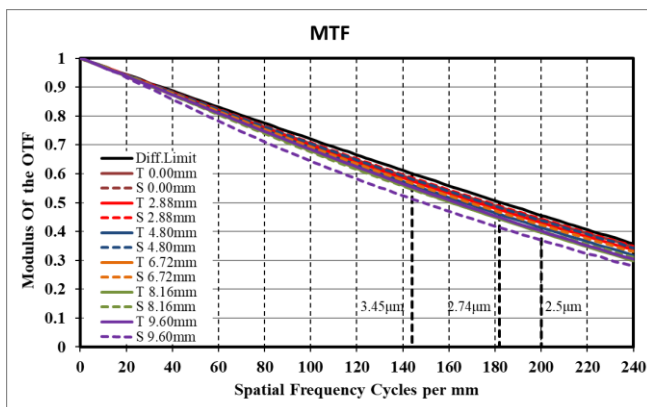
Key Features

- Ultra high resolution and consistency of image clarity
- 1.2" image circle, 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

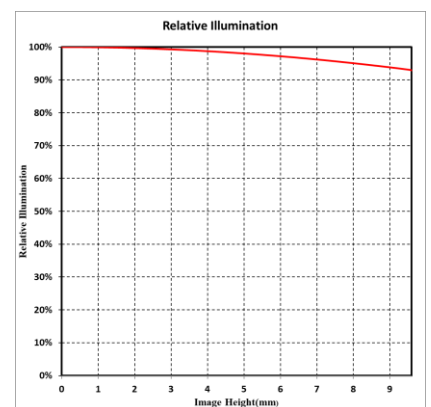
Distortion



MTF



Relative Illumination

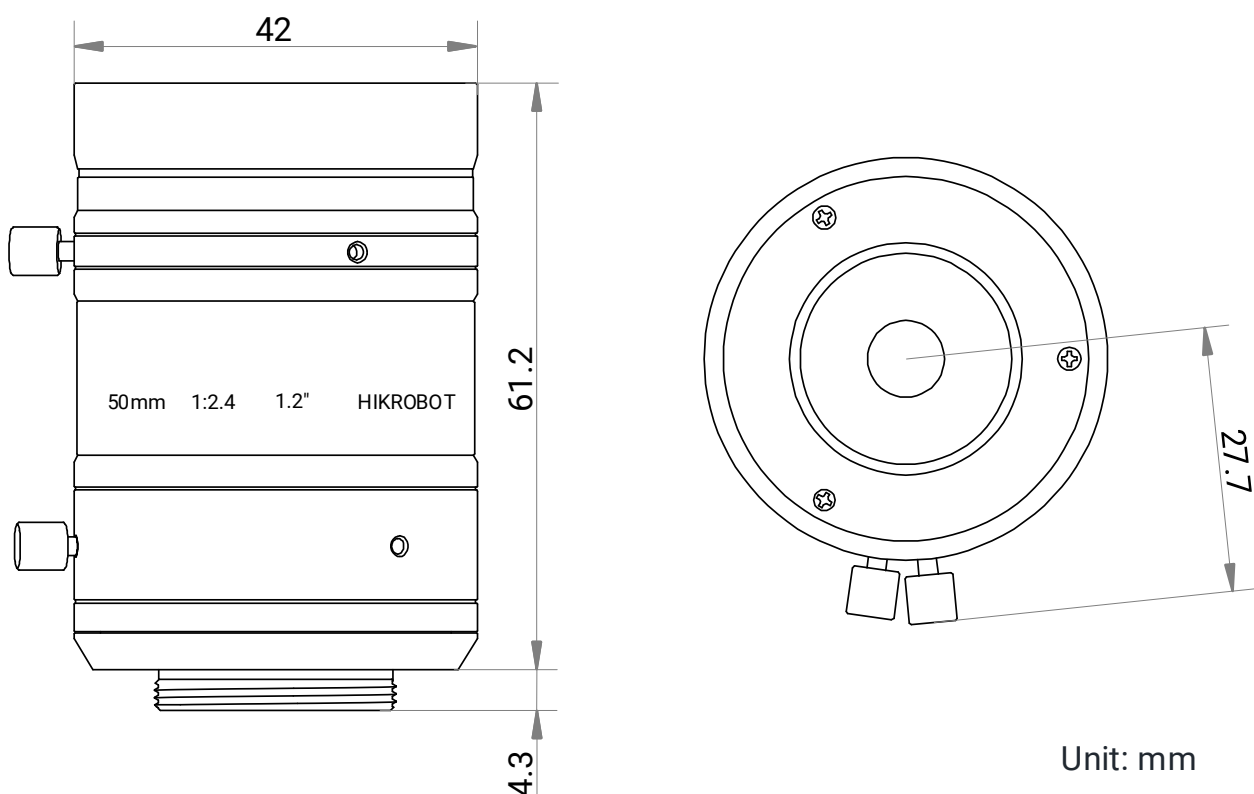


Note: The above curves are the simulate results based on F4, $\beta = -0.098$, WD=500 mm

Specification

Parameter	Model	MVL-KF5024M-25MP
		Fixed focal length, Manual iris, 25MP, FA Lens
Performance		
Focal length		50 mm
F-number		F2.4 to F16
Image size		Ø19.3 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		Ø42 mm × 61.2 mm (Ø1.65" × 2.1")
Weight		177 g (0.39 lb.)
Temperature		-10 °C to 50 °C (14 °F to 122 °F)
General		
Certification		RoHS 2.0

Dimension



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	98.03	-0.507	28.97	25.03	28.05	20.49	16.71	13.97
	far	136.17	-0.350	41.97	36.26	40.64	29.68	24.21	20.24
10	near	122.59	-0.403	36.40	31.45	35.24	25.75	21.00	17.57
	far	193.59	-0.250	58.71	50.73	56.84	41.53	33.88	28.34
5	near	164.18	-0.299	48.95	42.31	47.39	34.65	28.27	23.65
	far	327.81	-0.150	97.75	84.52	94.66	69.22	56.50	47.26
2	near	206.64	-0.237	61.73	53.38	59.78	43.72	35.69	29.85
	far	552.22	-0.090	162.95	140.95	157.81	115.49	94.29	78.89
1	near	226.22	-0.216	67.63	58.48	65.49	47.91	39.11	32.72
	far	713.01	-0.070	209.65	181.37	203.05	148.64	121.36	101.54
0		250	-0.195	74.78	64.67	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	57.77
		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	

HIKROBOT

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