

# MVL-KF1224M-25MP

## 1.2" 12mm 25MP FA LENS

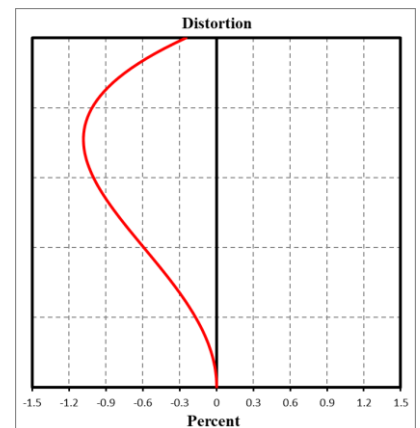
KF-P series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



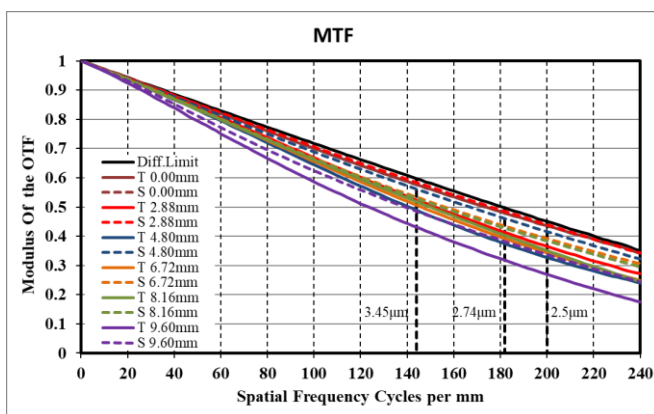
### Key Features

- 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

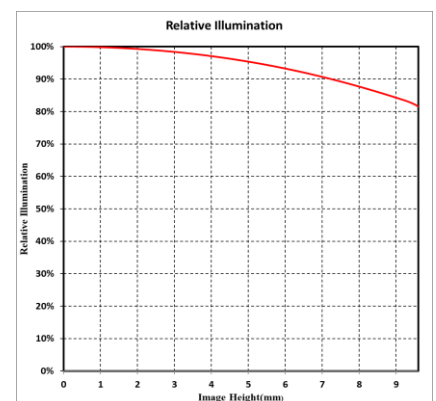
### Distortion



### MTF



### Relative Illumination

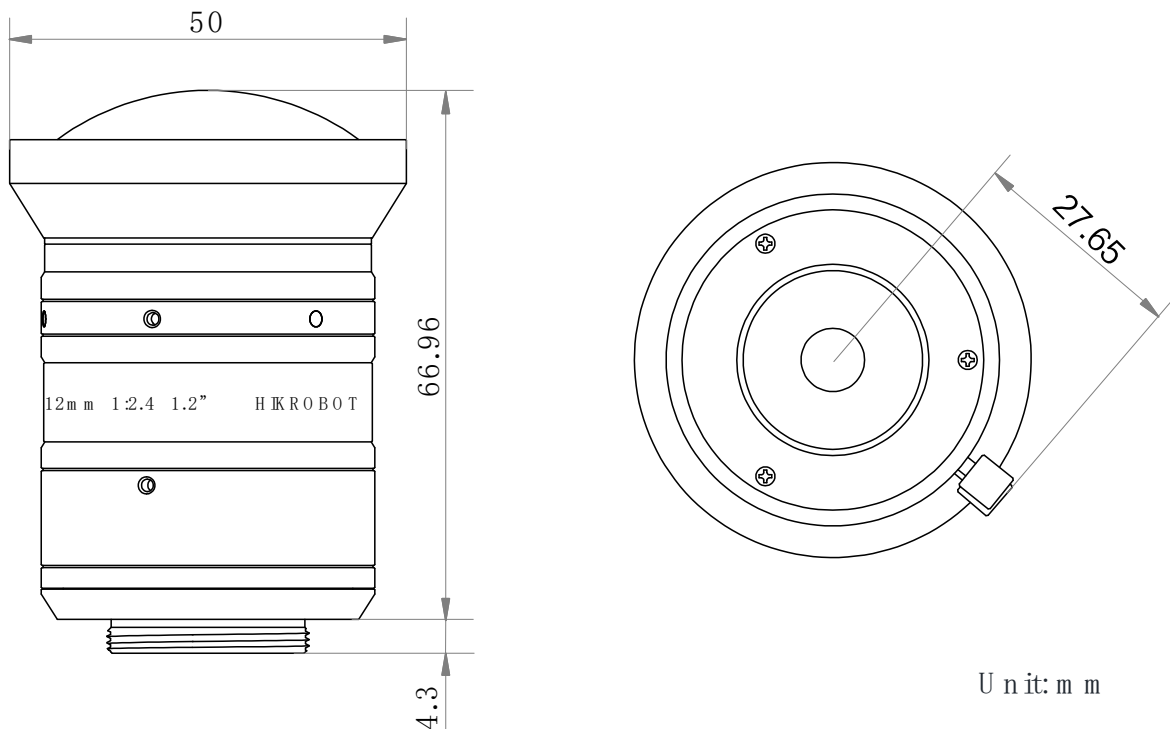


Note: The above curves are the simulate results based on F4,  $\beta=-0.037$ , WD=300 mm

## Specification

Model		MVL-KF1224M-25MP
Parameter	Fixed focal length, Manual iris, 25MP, FA Lens	
<b>Performance</b>		
Focal length	12 mm	
F-number	F2.4 to F16	
Image size	Ø19.3 mm (1.2")	
Distortion	0.39%	
Minimum object distance	0.1 m	
Field of view	D (19.30mm): 76.37° H (14.60mm): 62.32° V (12.63mm): 55.34°	
<b>Mechanical</b>		
Iris control	Manual	
Focus control	Manual	
Mount	C-mount	
Flange back length	17.526 mm	
Dimension	Ø50 mm× 66.96 mm (Ø1.97" × 2.62")	
Weight	215 g (0.474 lb.)	
Temperature	-10 °C to 50 °C (14 °F to 122 °F)	
<b>General</b>		
Certification	RoHS 2.0	

## 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)
1	near	43.80	-0.18	84.33	72.37	81.52	58.78	47.68	39.72
	far	96.06	-0.101	148.49	127.87	143.67	104.19	84.67	70.62
0		100	-0.098	153.00	131.92	148.08	107.62	87.51	73.03
		150	-0.069	214.03	184.81	207.22	150.95	122.86	102.56
		200	-0.054	274.92	237.59	266.23	194.21	158.14	132.05
		250	-0.044	335.76	290.33	325.19	237.43	193.39	161.51
		300	-0.037	396.56	343.04	384.12	280.64	228.63	190.97
		350	-0.032	457.34	395.73	443.03	323.83	263.86	220.42
		400	-0.028	518.12	448.42	501.93	367.02	299.09	249.86
		450	-0.025	578.88	501.10	560.82	410.20	334.31	279.30
		500	-0.023	639.64	553.77	619.71	453.38	369.52	308.73
		550	-0.021	700.39	606.44	678.59	496.55	404.74	338.17
		600	-0.019	761.14	659.11	737.46	539.72	439.96	367.60
		650	-0.018	821.89	711.78	796.34	582.89	475.17	397.04
		700	-0.017	882.64	764.44	855.21	626.06	510.38	426.47
		800	-0.015	1004.12	869.77	972.96	712.40	580.80	485.33
	900	-0.013	1125.60	975.09	1090.69	798.74	651.22	544.19	
	1000	-0.012	1247.08	1080.41	1208.43	885.07	721.64	603.05	

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