

MVL-HF1224M-10MP

1/1.8" 12mm 10MP FA LENS

FA series 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
- Bigger aperture, lower distortion and higher relative illumination rate
- Achromatic optical system design, Better imaging performance with color camera
- Excellent vibration resistance performance, optical axis shifting within pixel level
- Good stability at high and low temperature
- Multilayer and broadband coating design, compatible with visible and near-infrared applications

Order Model

MVL-HF1224M-10MP

Specification

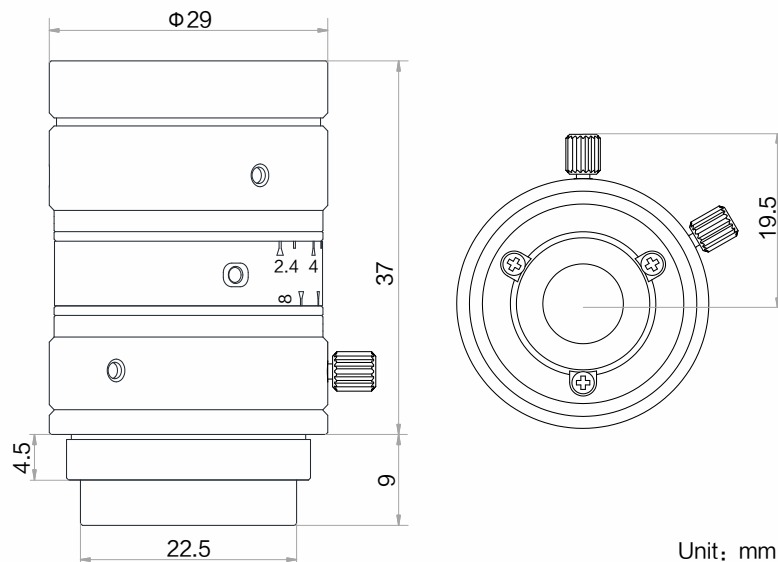
Model		MVL-HF1224M-10MP		
Parameter		Fixed focal length, Manual iris, 10MP, FA Lens		
Focal Length		12mm	Mount	C-Mount
F-Number		F2.4~F16	Flange Back Length	17.526mm
Image Size		Φ9mm(1/1.8")	Filter Thread	M27×0.5
Distortion		0.15%	Minimum Operation Distance	0.1m
Control	Iris	Manual	Dimension	Φ29×37mm
	Focus	Manual		
Operating Temperature		-10~50°C	Weight	65.9g
Angle of View		1/1.8"	D (8.96mm)	40.2°
			H (7.37mm)	33.6°
			V (4.92mm)	22.9°



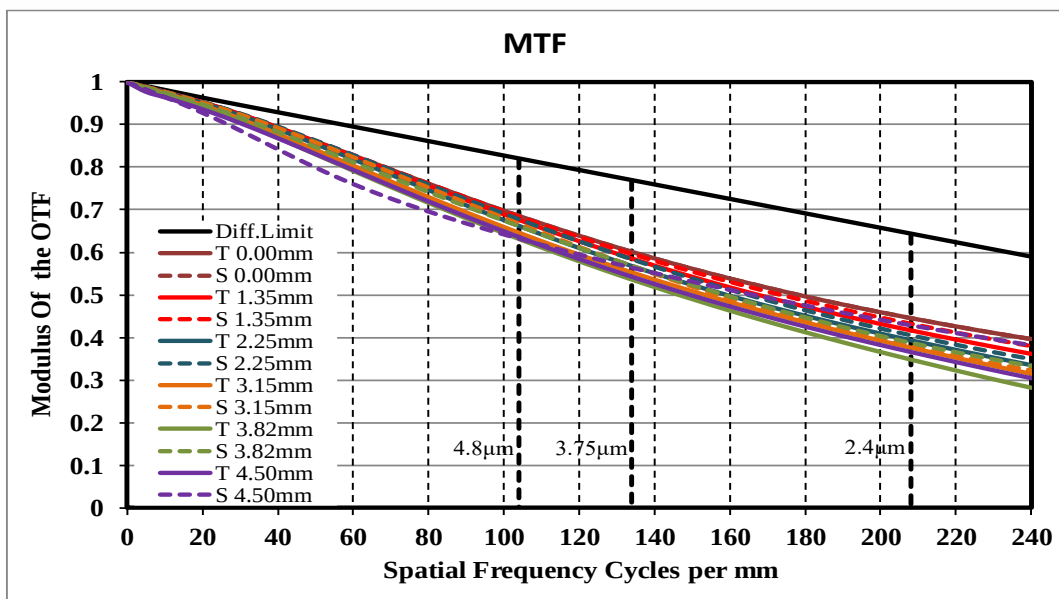
Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8"		1/2"	
				(7.38mm×4.92mm)		(6.22mm×4.67mm)	
				H	V	H	V
0	100		-0.106	69.83	46.47	58.80	44.10
	150		-0.074	100.55	66.98	84.72	63.57
	200		-0.056	131.17	87.44	110.57	82.99
	250		-0.046	161.78	107.89	136.39	102.40
	300		-0.038	192.35	128.31	162.20	121.79
	350		-0.033	222.91	148.74	187.99	141.18
	400		-0.029	253.44	169.15	213.77	160.55
	450		-0.026	283.98	189.56	239.55	179.93
	500		-0.023	314.51	209.97	265.32	199.31
	550		-0.021	345.05	230.38	291.10	218.68
	600		-0.020	375.57	250.78	316.86	238.05
	650		-0.018	406.10	271.18	342.63	257.42
	700		-0.017	436.63	291.59	368.40	276.79
	800		-0.015	497.67	332.39	419.93	315.52
	900		-0.013	558.73	373.20	471.47	354.26
	1000		-0.012	619.80	414.02	523.02	393.02
1	Near	50.3	-0.191	39.08	25.92	32.85	24.59
	Far	130.0	-0.084	87.95	58.51	74.05	55.52
2	Near	31.3	-0.275	27.29	18.05	22.90	17.12
	Far	58.8	-0.168	44.42	29.44	37.33	27.93
5	Near	10.5	-0.528	14.31	9.42	11.98	8.94
	Far	16.0	-0.417	18.13	11.93	15.17	11.31

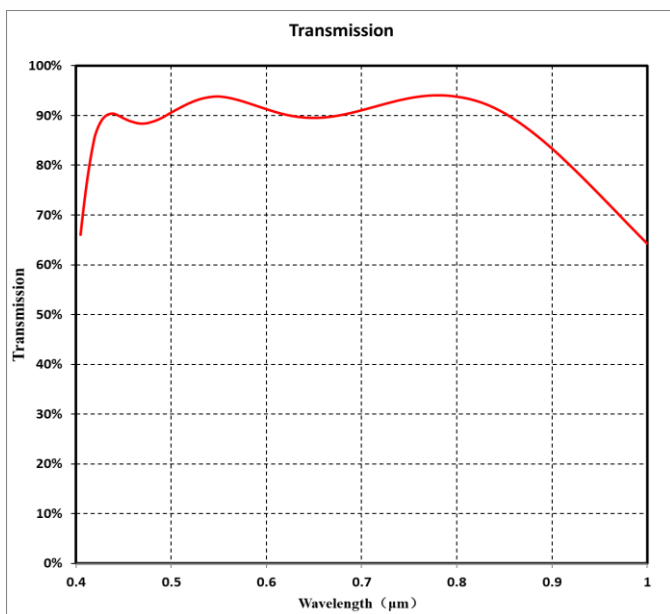
Dimension



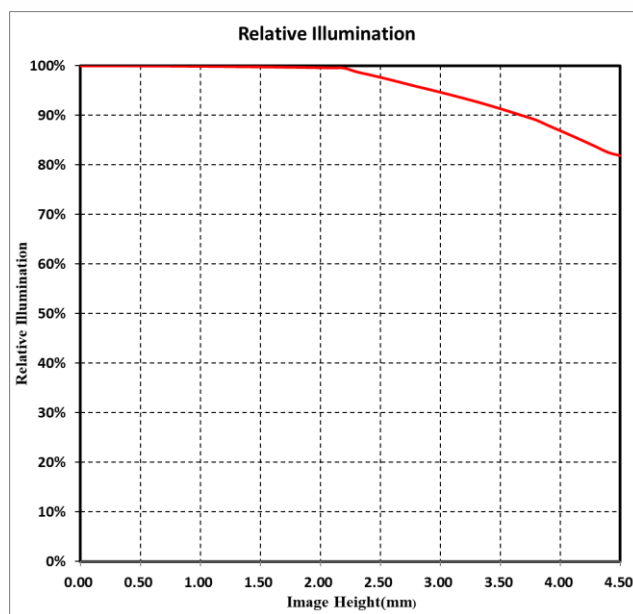
MTF



Transmission



Relative Illumination



Note: The above curves are the simulate results based on F2.4, $\beta = -0.029$, WD=400 mm.

HIKROBOT

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