

MVL-HF5024M-10MP

1/1.8" 50mm 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-HF5024M-10MP

Specification

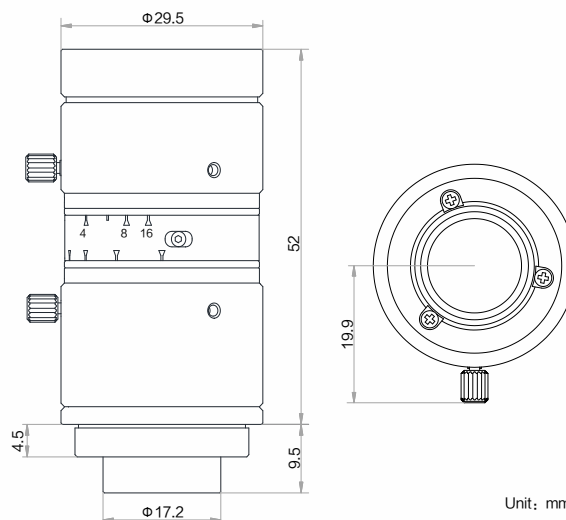
Model		MVL-HF5024M-10MP		
Parameter		Fixed focal length, Manual iris, 10MP, FA Lens		
Focal Length		50mm	Mount	C-Mount
F-Number		F2.4~F16	Flange Back Length	17.526mm
Image Size		Φ9mm(1/1.8")	Filter Thread	M27×0.5
Distortion		0.03%	Minimum Operation Distance	0.3m
Control	Iris	Manual	Dimension	Φ29×52mm
	Focus	Manual		
Operating Temperature		-10~50°C	Weight	85.9g
Angle of View		1/1.8"	D (8.96mm)	9.10°
			H (7.37mm)	7.48°
			V (4.92mm)	5.00°



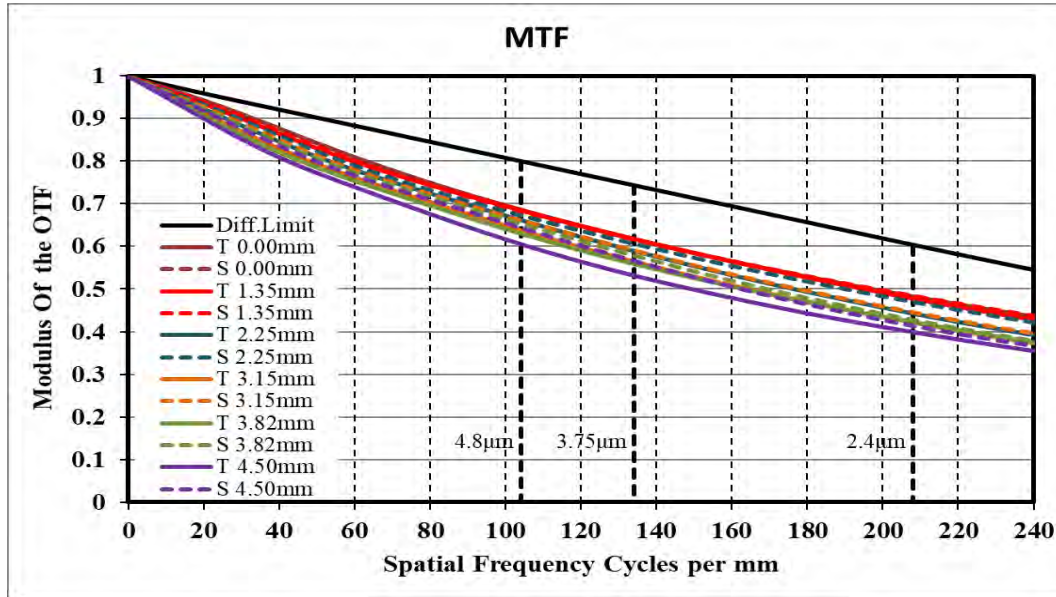
Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8'' (7.38mm×4.92mm)		1/2'' (6.22mm×4.67mm)	
				H	V	H	V
0	300		-0.192	38.32	25.59	32.31	24.26
	350		-0.161	45.64	30.44	38.47	28.89
	400		-0.139	52.90	35.28	44.59	33.49
	450		-0.122	60.11	40.09	50.67	38.05
	500		-0.110	67.30	44.88	56.73	42.60
	550		-0.099	74.46	49.65	62.76	47.13
	600		-0.090	81.61	54.42	68.79	51.66
	650		-0.083	88.74	59.18	74.80	56.17
	700		-0.077	95.87	63.93	80.81	60.68
	800		-0.067	110.09	73.42	92.80	69.69
	900		-0.059	124.30	82.89	104.78	78.68
	1000		-0.053	138.47	92.34	116.72	87.65
1	near	275.6	-0.213	34.61	23.09	29.18	21.91
	far	2720	-0.019	378.96	252.72	319.46	239.88
2	near	255.4	-0.234	31.55	21.04	26.60	19.97
	far	1383	-0.039	190.09	126.76	160.24	120.32
5	near	211.8	-0.296	24.93	16.63	21.02	15.78
	far	578	-0.097	76.35	50.91	64.36	48.32
10	near	169.4	-0.400	18.49	12.33	15.58	11.70
	far	309	-0.193	38.32	25.55	32.30	24.25
20	near	128.1	-0.605	12.20	8.13	10.28	7.72
	far	174.0	-0.384	19.23	12.82	16.21	12.17

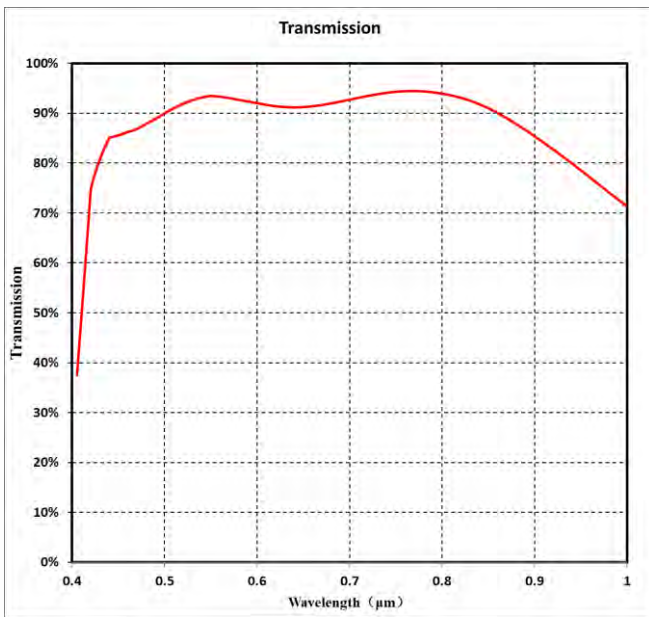
Dimension



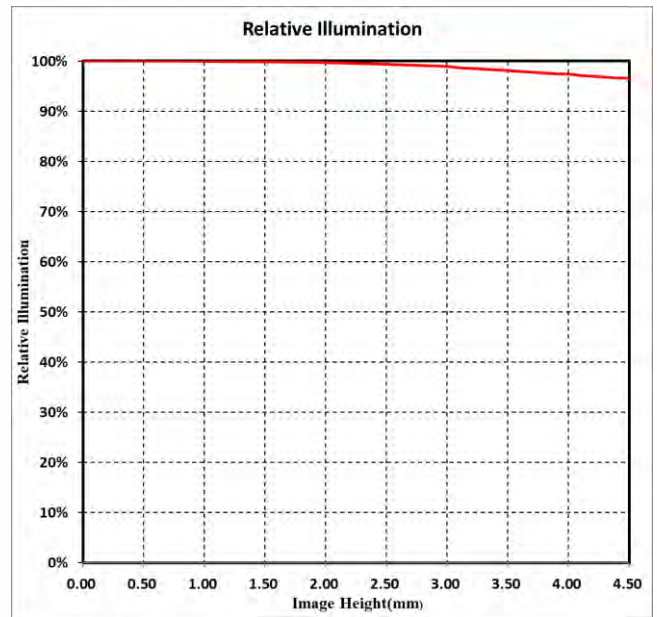
MTF



Transmission



Relative Illumination



Note: The above curves are the simulate results based on F2.4, $\beta=-0.109$, WD=500 mm.

HIKROBOT

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