HIKROBOT

MVL-HF1624M-10MP

1/1.8” 16mm 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-HF1624M-10MP

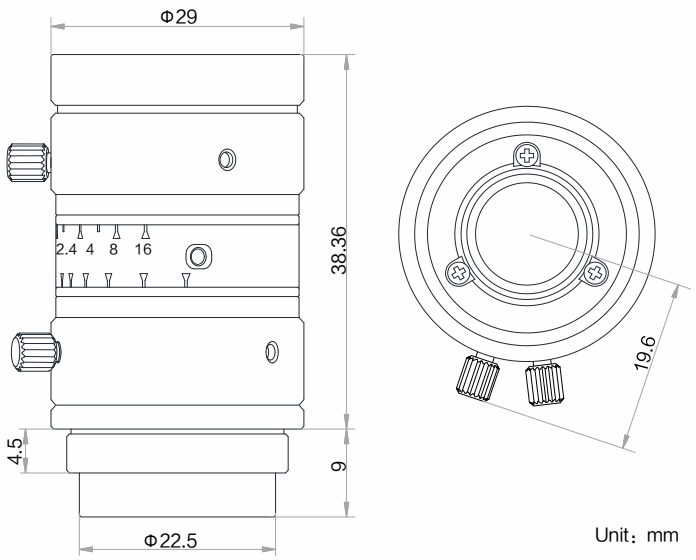
Specification

Model / Parameter		MVL-HF1624M-10MP Fixed focal length, Manual iris, 10MP, FA Lens		
Focal Length		16mm	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		-0.02%	Minimum Operation Distance	0.1m
Control	Iris	Manual	Dimension	Φ29×38.36mm
	Focus	Manual		
Operating Temperature		-10~50℃	Weight	70.2g
Angle of View		1/1.8”	D（8.96mm）	30.17°
			H（7.37mm）	25.07°
			V（4.92mm）	16.92°

Field of View

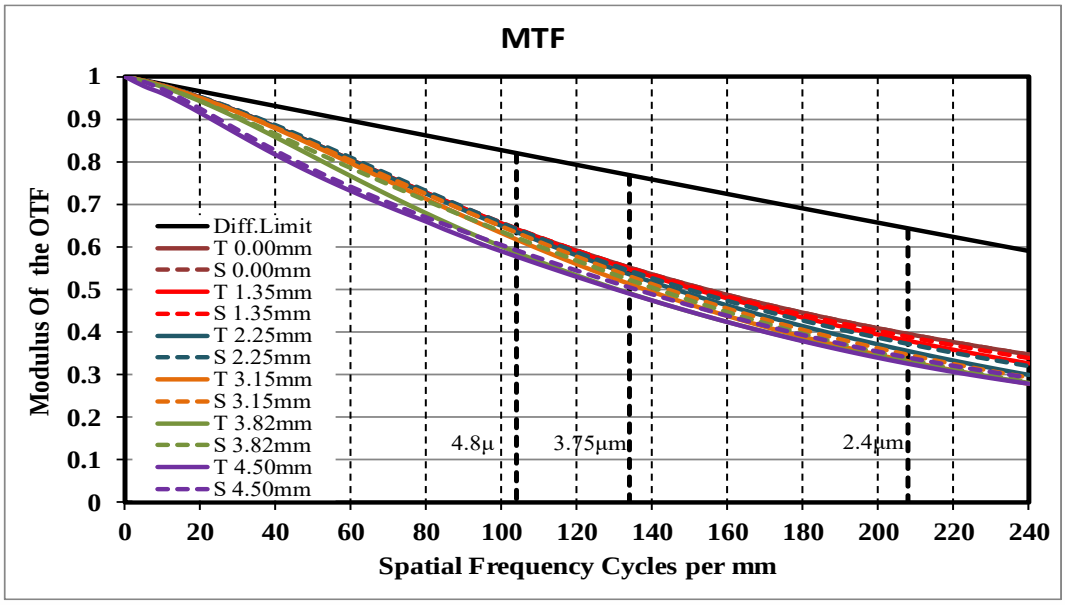
Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8'' (7.38mm×4.92mm)		1/2'' (6.22mm×4.67mm)	
				H	V	H	V
0	100		-0.138	53.71	35.74	45.23	33.92
	150		-0.097	76.51	50.93	64.44	48.33
	200		-0.075	99.14	66.01	83.51	62.65
	250		-0.061	121.70	81.05	102.52	76.92
	300		-0.051	144.21	96.06	121.50	91.17
	350		-0.044	116.70	111.05	140.46	105.40
	400		-0.039	189.17	126.03	159.40	119.62
	450		-0.035	211.63	141.01	178.34	133.83
	500		-0.032	234.10	155.98	197.27	148.05
	550		-0.029	256.55	170.95	216.20	162.15
	600		-0.027	278.99	185.92	253.12	176.46
	650		-0.025	301.43	200.88	254.04	190.66
	700		-0.023	323.87	215.84	272.95	204.85
	800		-0.020	368.74	245.75	310.78	233.25
	900		-0.018	413.60	275.67	348.60	261.65
	1000		-0.016	458.46	305.58	386.41	290.03
1	Near	64.0	-0.202	36.77	24.43	30.94	23.19
	Far	250.0	-0.062	119.60	79.58	100.71	75.52
2	Near	45.2	0.267	27.91	18.53	23.47	17.58
	Far	118.0	-0.123	60.36	40.09	50.77	38.04
5	Near	20.6	-0.459	16.28	10.79	13.67	10.23
	Far	38.3	-0.305	24.50	16.22	20.57	15.39

Dimension

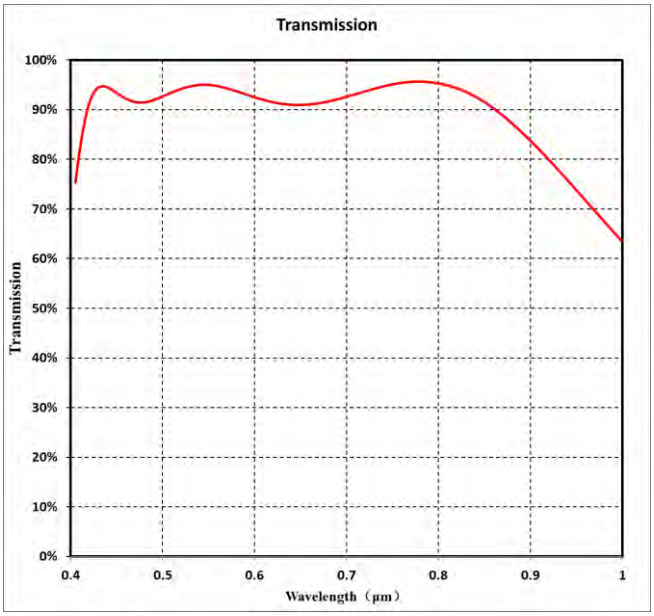


Unit：mm

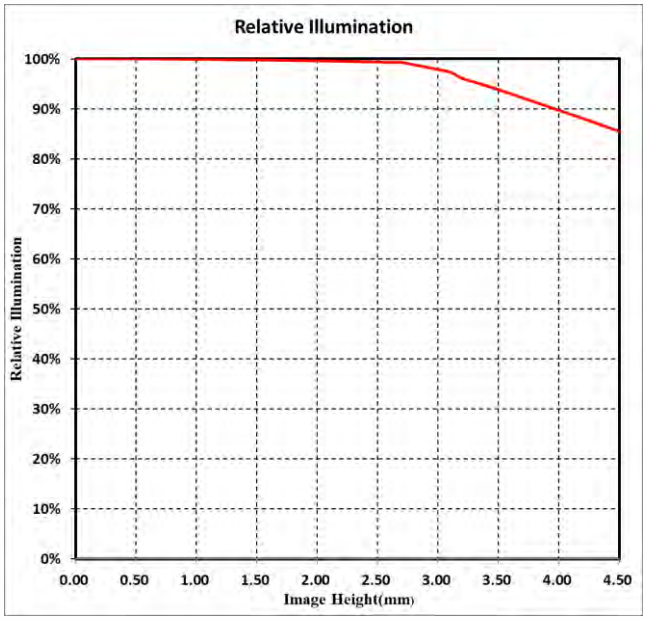
MTF



Transmission



Relative Illumination



Note：The above curves are the simulate results based on F2.4, β=-0.039, WD=400 mm.

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