

MVL-HF5028M-6MPE

1/1.8" 50mm 6MP FA LENS

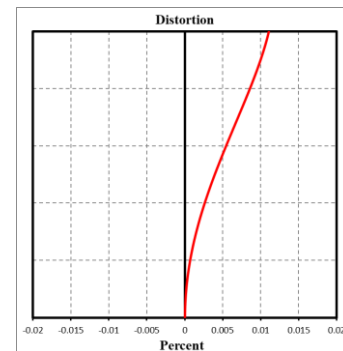
HF-E series FA Lens are optimized for machine vision light sources and sensor, with high resolution, excellent image quality, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications and ideal for industrial cameras.



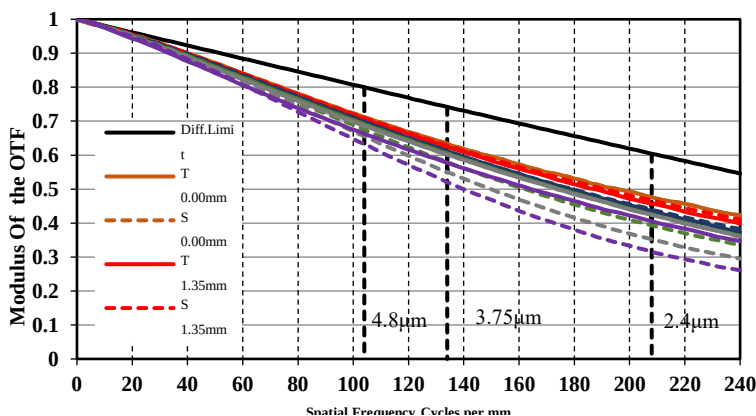
Key Features

- High image clarity and consistency
- Ultra-low distortion rate
- Ultra-high image peripheral brightness ratio
- Good optical performance at various object distances

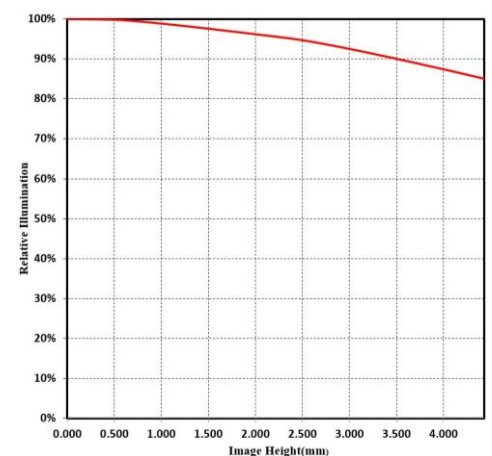
Distortion



MTF



Relative Illumination



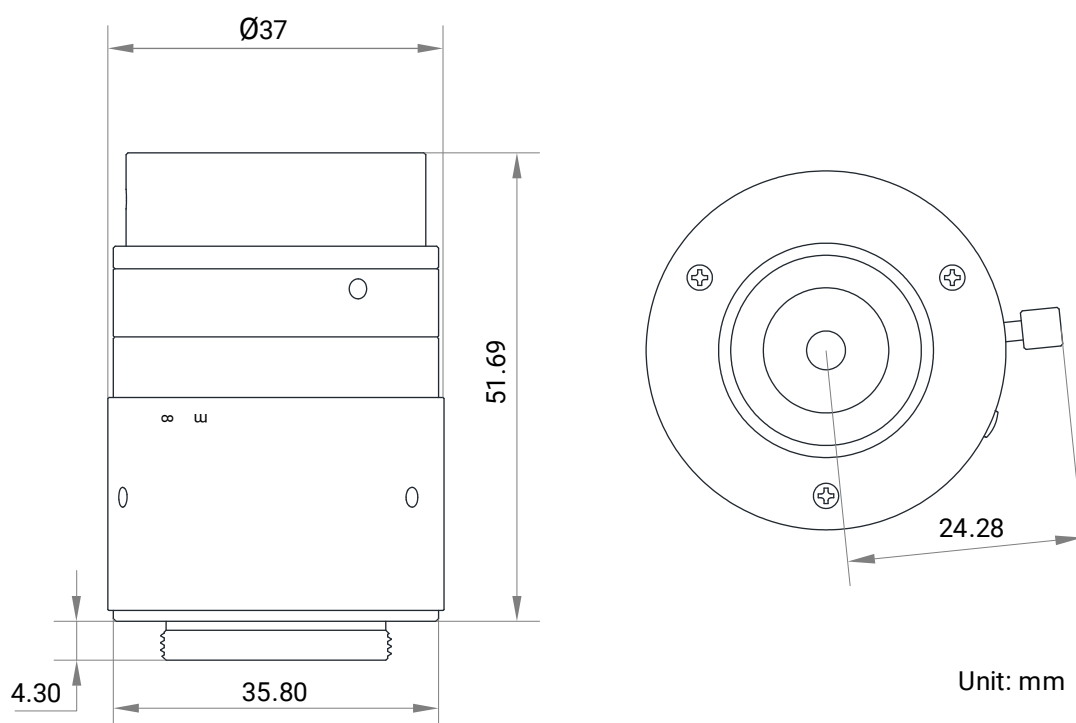
Note: The above curves are the simulate results based on F2.8, $\beta=-0.0806$, WD=500 mm.



Specification

Parameter	Model	MVL-HF5028M-6MPE
	Fixed focal length, Manual iris, 6MP, FA Lens	
Performance		
Focal length	50 mm	
F-number	F2.8 to F16	
Image size	Ø9 mm (1/1.8")	
Distortion	0.03%	
Minimum object distance	0.25 m	
Field of view	D (8.96 mm): 9.72° H (7.38 mm): 7.84° V (4.92 mm): 5.24°	
Mechanical		
Iris control	Manual	
Focus control	Manual	
Filter thread	M30.5 × 0.5	
Mount	C-mount	
Flange back length	17.526 mm	
Dimension	Ø37 mm × 51.7 mm (Ø1.5" x 2.0")	
Weight	102 g (0.2 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)			
				1/1.8"		1/2"	
				H(7.38mm)	H(4.92mm)	H(6.22mm)	V(4.67mm)
20	near	108.6	-0.645	11.47	7.64	9.67	7.25
	far	146.7	-0.427	17.33	11.54	14.60	10.95
10	near	144.4	-0.433	17.08	11.38	14.39	10.80
	far	247.9	-0.231	31.94	21.28	26.91	20.20
5	near	179.9	-0.327	22.63	15.08	19.07	14.31
	far	410.9	-0.133	55.44	36.96	46.73	35.08
2	near	215.1	-0.263	28.12	18.74	23.69	17.78
	far	717.1	-0.074	99.55	66.39	83.92	63.02
1	near	231.0	-0.242	30.60	20.39	25.78	19.35
	far	967.3	-0.054	135.59	90.43	114.30	85.84
0	250		-0.220	33.56	22.37	28.28	21.23
	300		-0.180	40.98	27.31	34.53	25.92
	350		-0.153	48.31	32.20	40.71	30.56
	400		-0.133	55.57	37.04	46.83	35.16
	450		-0.118	62.80	41.86	52.93	39.74
	500		-0.105	70.00	46.67	59.00	44.30
	550		-0.096	77.18	51.46	65.05	48.84
	600		-0.087	84.34	56.23	71.09	53.38
	650		-0.081	91.49	61.01	77.12	57.91
	700		-0.075	98.63	65.77	83.14	62.43
	800		-0.065	112.88	75.28	95.16	71.46
	900		-0.058	127.12	84.78	107.16	80.47
	1000		-0.052	141.34	94.27	119.15	89.48



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