

MVL-HF1228M-6MPE

1/1.8" 12mm 6MP FA LENS

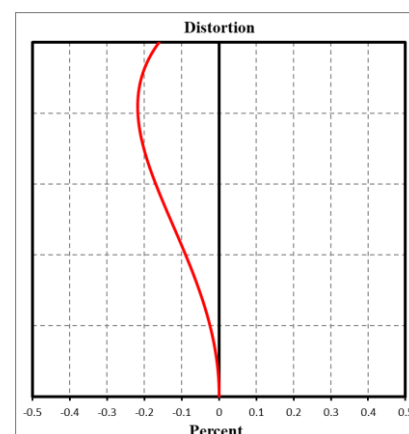
HF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, and good stability. Featured with fixed focal length, fixed iris and compact size, it is suitable for machine vision industry applications.



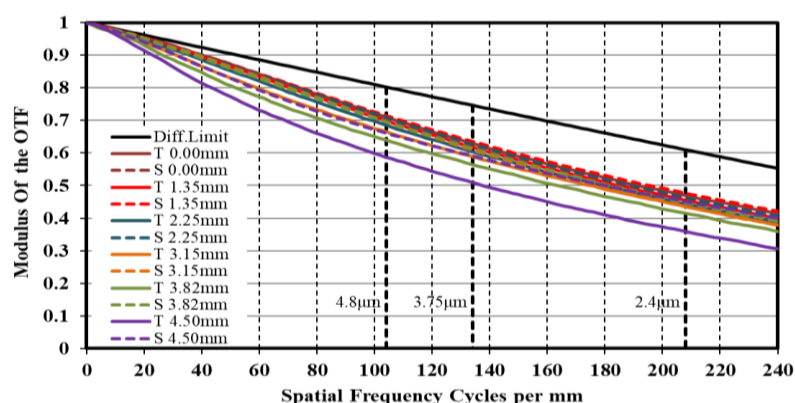
Key Features

- Higher image clarity and contrast ratio
- Ultra-low distortion and higher relative illumination rate
- Good optical performance at ultra-short working distance
- Compact design, convenient for device integration

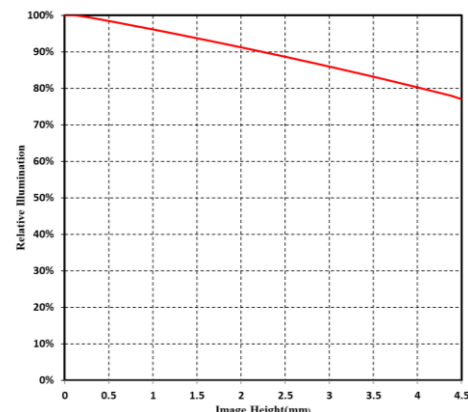
Distortion



MTF



Relative Illumination

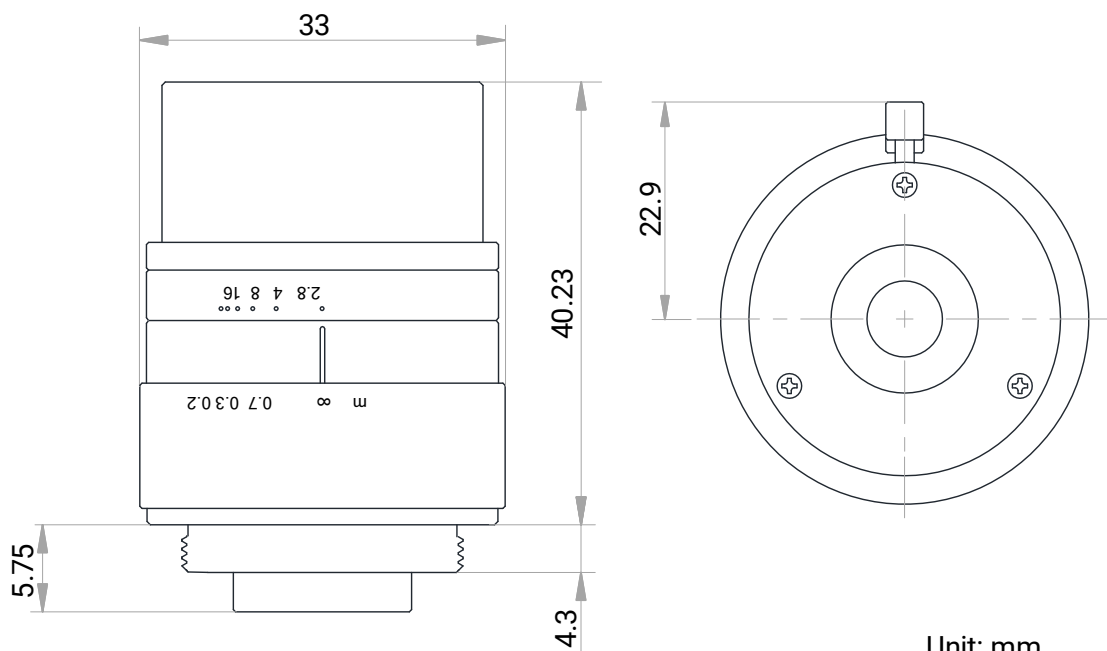


Note: The above curves are the simulated results based on F2.8, $\beta=-0.039$, WD=300 mm.

Specification

	Model	MVL-HF1228M-6MPE
Parameter		Fixed focal length, Manual iris, 6MP, FA Lens
Performance		
Focal length		12 mm
F-number		F2.8 to F16
Image size		Ø9 mm (1/1.8")
Distortion		−0.005%
Minimum object distance		0.1 m
Field of view		D (8.96 mm): 40.94° H (7.38 mm): 34.14° V (4.92 mm): 23.17°
Mechanical		
Iris control		Manual
Focus control		Manual
Filter thread		M27 × P0.5
Mount		C-mount
Flange back length		17.526 mm
Dimension		Ø33 mm × 40.2 mm (Ø1.3" × 1.6")
Weight		61.7 g (0.1 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)	V(4.92mm)	H(6.22mm)	V(4.67mm)
2	near	31.86	-0.276	27.13	17.94	22.77	17.02
	far	63.42	-0.163	45.68	30.32	38.42	28.77
1	near	50.88	-0.192	38.94	25.80	32.72	24.48
	far	139.1	-0.082	90.87	60.48	76.53	57.39
0	100		-0.107	69.40	46.10	58.39	43.74
	150		-0.075	99.49	66.17	83.77	62.80
	200		-0.057	129.46	86.18	109.04	81.78
	250		-0.046	159.38	106.14	134.28	100.74
	300		-0.039	189.27	126.09	159.49	119.67
	350		-0.034	219.13	146.03	184.69	138.60
	400		-0.030	248.99	165.97	209.88	157.52
	450		-0.027	278.84	185.89	235.06	176.44
	500		-0.024	308.68	205.82	260.23	195.35
	550		-0.022	338.53	225.74	285.41	214.26
	600		-0.020	368.36	245.66	310.58	233.16
	650		-0.019	398.20	265.57	335.75	252.07
	700		-0.017	428.03	285.49	360.91	270.98
	800		-0.015	487.69	325.32	411.25	308.78
	900		-0.013	547.35	365.15	461.57	346.59
	1000		-0.012	607.00	404.98	511.90	384.39



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