MVL-HF0824M-10MP

1/1.8" 8 mm 10 MP FA Lens

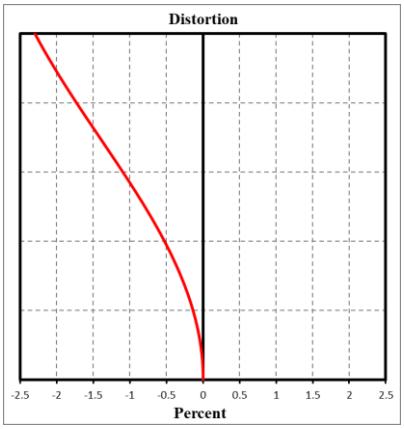
HF-P series FA Lens are optimized for machine vision light sources and sensor, with high resolution, excellent image quality, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications and ideal for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



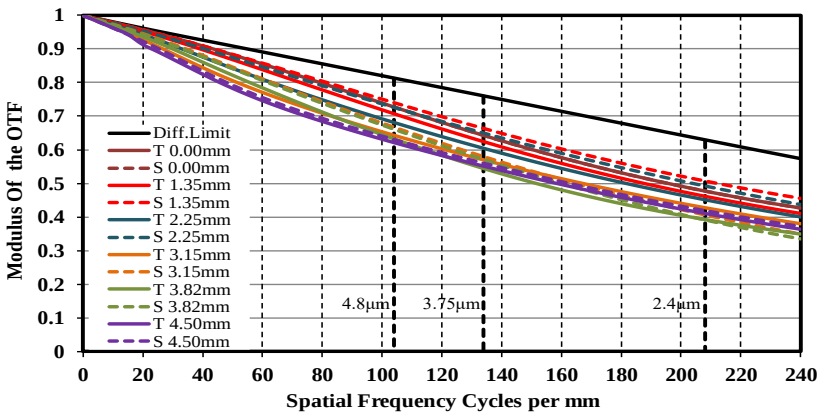
Key Features

- 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

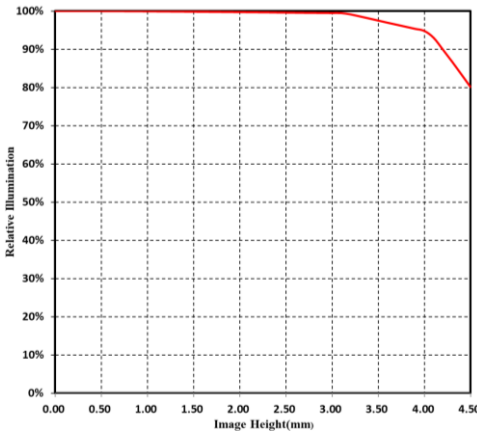
Distortion



MTF



Relative Illumination

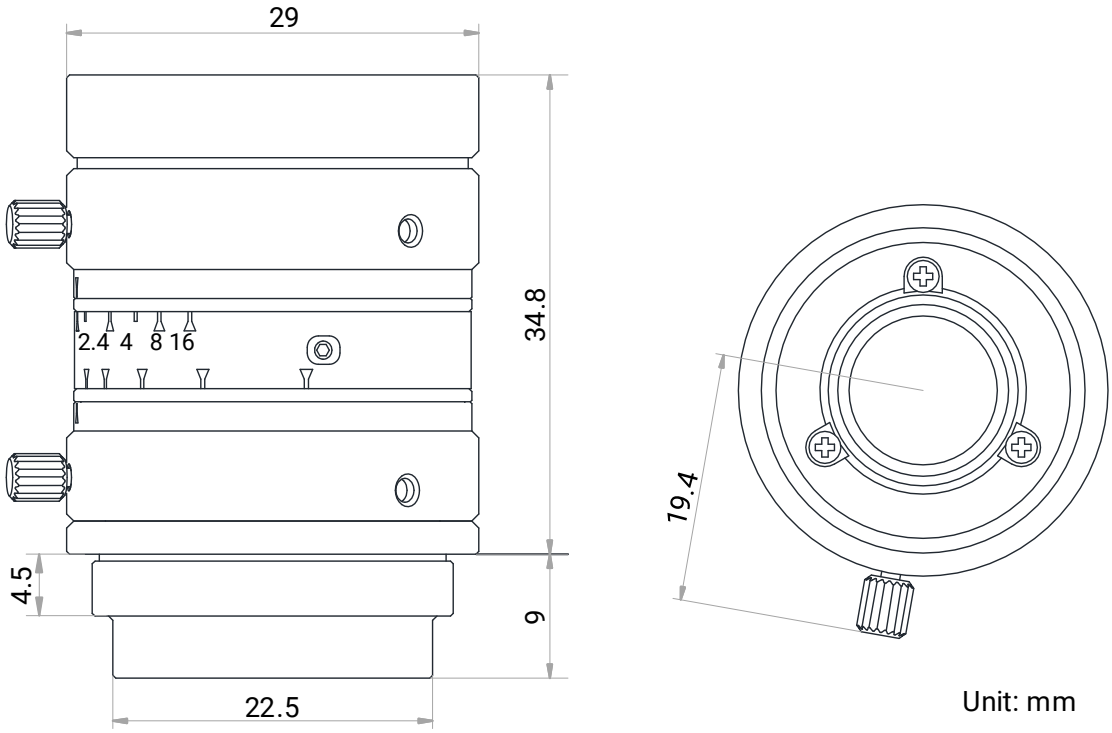


Note：The above curves are the simulate results based on F2.4, β=-0.019, WD=400 mm.

Specification

Model / Parameter	MVL-HF0824M-10MP
	Fixed Focal Length, Manual Iris, 10 MP, FA Lens
Performance	
Focal length	8 mm
F-number	F2.4 to F16
Image size	Ø9 mm (1/1.8")
Distortion	–0.67%
Minimum object distance	0.1 m
Field of view	D (8.96 mm): 58.81° H (7.38 mm): 49.56° V (4.92 mm): 34.04°
Mechanical	
Iris control	Manual
Focus control	Manual
Filter thread	M27 × 0.5
Mount	C-mount
Flange back length	17.526 mm
Dimension	Ø29 mm × 34.8 mm (Ø1.1" × 1.4")
Weight	70.9 g (0.2 lb.)
Temperature	–10°C to 50°C (14 °F to 122 °F)
General	
Certification	RoHS 2.0

Dimension



Unit: mm

Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8"		1/2"	
				H(7.38 mm)	V(4.92 mm)	H(6.22 mm)	V(4.67 mm)
2	near	12.68	−0.300	24.17	15.65	20.06	14.82
	far	20.12	−0.240	31.12	20.21	25.87	17.15
1	near	28.6	−0.190	39.17	25.54	32.63	24.20
	far	52.65	−0.120	61.37	40.19	51.25	38.09
0	100		−0.070	106.09	69.80	88.83	66.18
	150		−0.048	152.48	100.50	127.79	95.30
	200		−0.037	198.83	131.19	166.74	124.40
	250		−0.030	245.17	161.87	205.67	153.50
	300		−0.025	291.50	192.54	244.60	182.60
	350		−0.022	337.82	223.21	283.52	211.69
	400		−0.019	384.17	253.90	322.46	240.80
	450		−0.017	430.46	284.55	361.36	269.87
	500		−0.015	476.78	315.22	400.28	298.96
	550		−0.014	523.09	345.88	439.19	328.04
	600		−0.013	569.40	376.55	478.10	357.13
	650		−0.012	615.72	407.22	517.02	386.22
	700		−0.011	662.02	437.87	555.92	415.30
	800		−0.010	754.64	499.20	633.75	473.47
	900		−0.009	847.28	560.54	711.58	531.65
	1000		−0.008	939.91	621.87	789.42	589.82

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