

MVL-MF1228M-10MPE 2/3" 12 mm 10 MP FA Lens

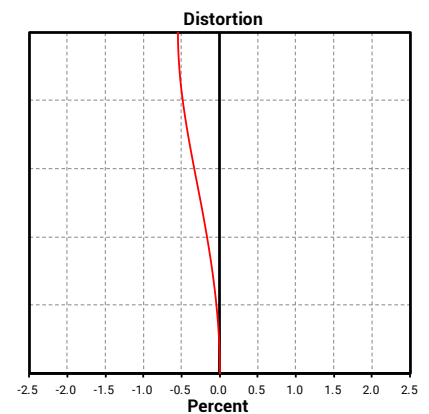
MF-10MPE series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture, and compact size, it is suitable for machine vision industry applications.



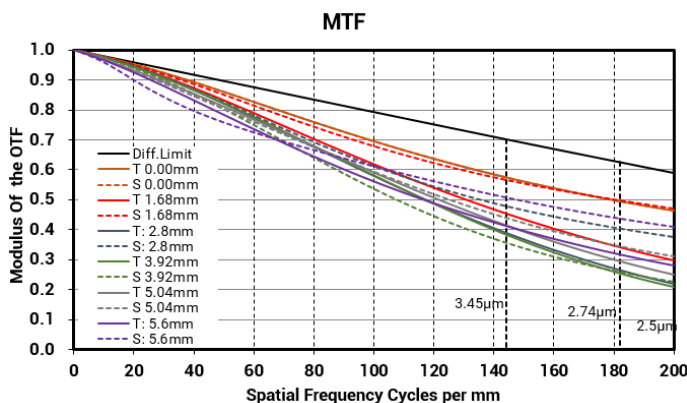
Key Feature

- High resolution and consistency of image clarity
- Lower distortion and higher relative illumination rate
- Excellent performance at high and low temperature
- Good optical performance at short working distance

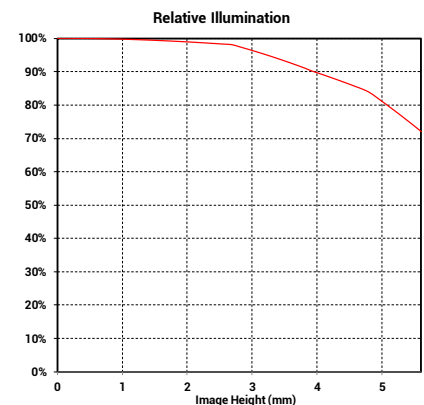
Distortion



MTF



Relative Illumination

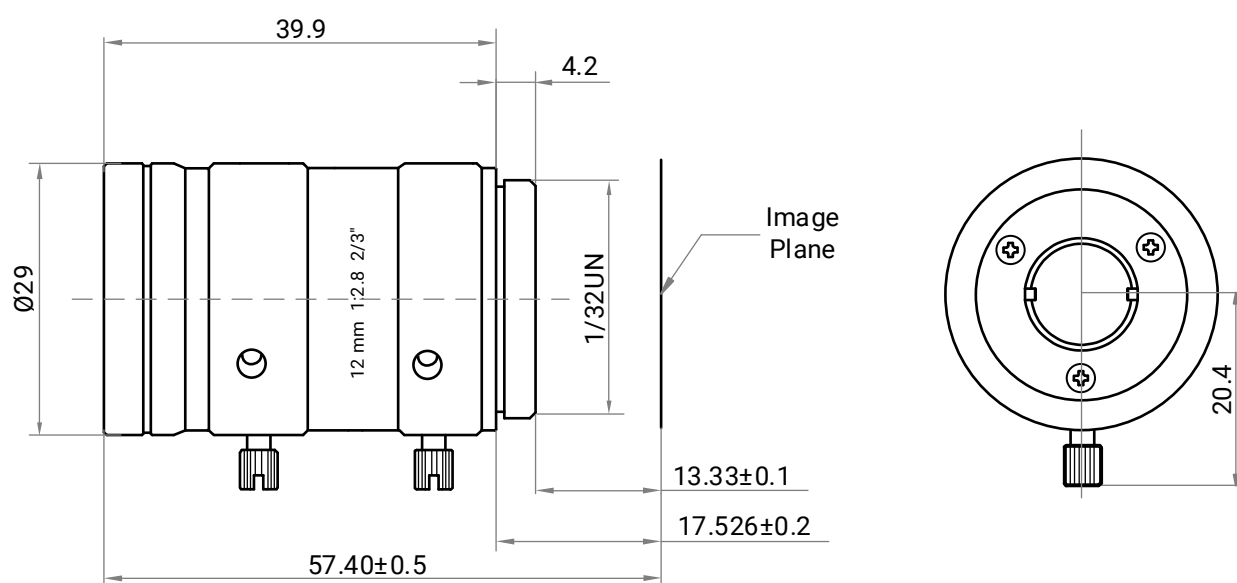


Note: The above curves are the simulate results based on F2.8, $\beta = -0.03$, WD=400 mm.

Specification

Model	MVL-MF1228M-10MPE
Performance	
Focal length	12 mm
F-number	F2.8 to F16
Image size	Φ11.2 mm (2/3")
Distortion	−0.19%
Min. object distance	0.1 m
Field of view	D (11.01 mm): 47.66° H (8.45 mm): 37.47° V (7.07 mm): 31.67°
Mechanical	
Iris control	Manual
Focus control	Manual
Filter thread	M25.5 × P0.5
Mount	C-mount
Flange back length	17.526 mm
Dimension	Φ29 mm × 39.9 mm (Φ1.1" × 1.6")
Weight	59 g (0.1 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)					
				2/3"		1/1.8"		1/2"	
				H (8.45mm)	V (7.07mm)	H (7.38mm)	V (4.92mm)	H (6.22mm)	V (4.67mm)
5	Near	11.2	-0.528	16.3	13.6	14.2	9.4	11.9	8.9
	Far	18.9	-0.399	21.5	17.9	18.7	12.4	15.7	11.8
2	Near	31.9	-0.276	31.1	25.9	27.1	17.9	22.7	17.0
	Far	66.2	-0.160	53.4	44.6	46.6	30.9	39.2	29.4
1	Near	50.9	-0.192	44.7	37.3	38.9	25.8	32.7	24.5
	Far	145.7	-0.080	107.0	89.4	93.3	62.1	78.6	58.9
0	100		-0.107	79.8	66.6	69.2	46.0	58.2	43.6
	150		-0.075	113.9	95.1	99.0	65.8	83.3	62.4
	200		-0.058	147.8	123.5	128.7	85.5	108.3	81.2
	250		-0.047	181.6	151.7	159.3	105.2	133.2	99.9
	300		-0.040	215.4	180.0	187.9	124.9	158.2	118.6
	350		-0.034	249.2	208.2	217.4	144.6	183.1	137.3
	400		-0.030	282.9	236.6	247.0	164.3	208.0	156.0
	450		-0.027	316.8	264.9	276.6	184.0	232.9	174.7
	500		-0.024	350.7	293.2	306.1	203.7	257.8	193.3
	550		-0.022	384.5	321.5	335.6	222.4	282.7	212.0
	600		-0.020	418.3	349.8	365.2	243.1	307.6	230.7
	650		-0.019	452.1	378.1	394.7	262.7	332.5	249.4
	700		-0.017	486.0	406.4	424.2	282.4	357.3	268.0
	800		-0.015	553.6	462.9	483.3	321.8	407.1	305.4
	900		-0.014	621.2	519.5	542.4	361.1	456.9	342.7
	1000		-0.012	688.8	576.1	601.4	400.5	506.7	380.1



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