

MVL-MF1628M-10MPE 2/3" 16 mm 10 MP FA Lens

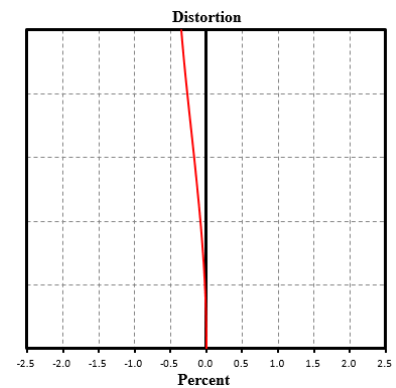
MF-10MPE series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture, and compact size, it is suitable for machine vision industry applications.



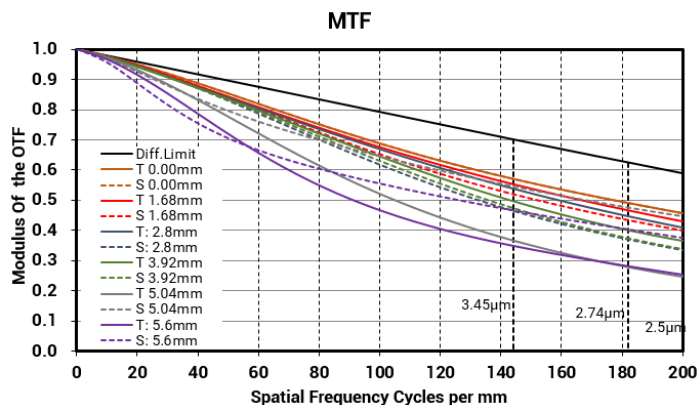
Key Feature

- 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

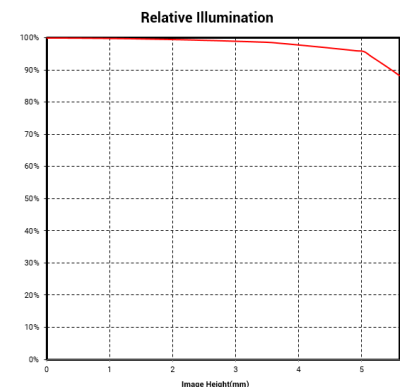
Distortion



MTF



Relative Illumination

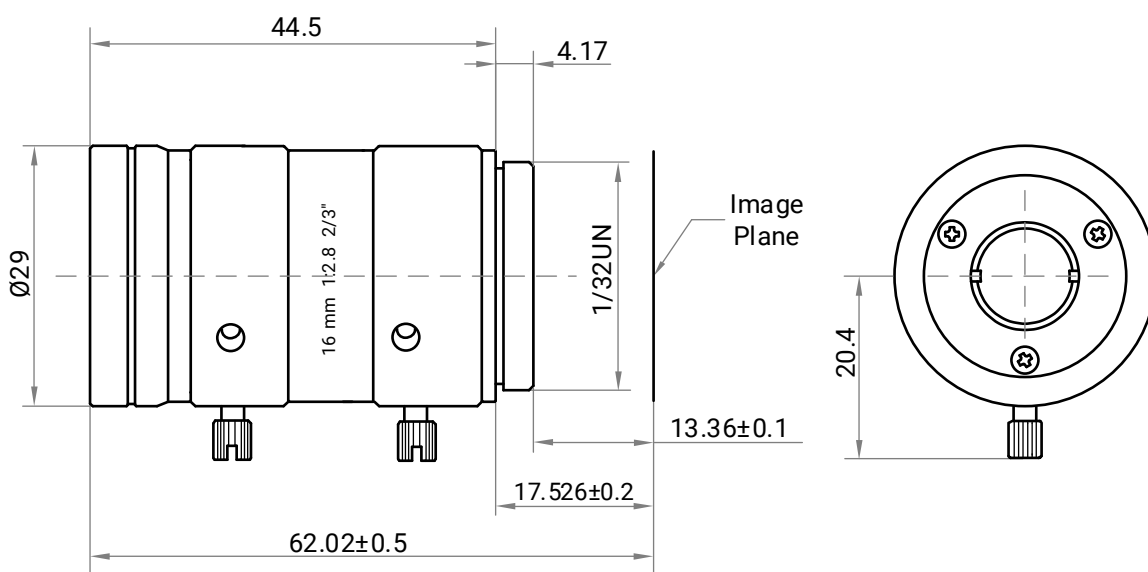


Note: The above curves are the simulate results based on F2.8, $\beta = -0.039$, WD=400 mm.

Specification

Model	MVL-MF1628M-10MPE
Performance	
Focal length	16 mm
F-number	F2.8 to F16
Image size	Φ11.2 mm (2/3")
Distortion	-0.09%
Min. object distance	0.1 m
Field of view	D (11.01 mm): 37.42° H (8.45 mm): 29.1° V (7.07 mm): 24.5°
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 × 44.5 mm (Φ1.1" × 1.8")
Weight	63 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)
10	Near	11.8	-0.794	10.7	9.0	9.4	6.2	7.9	5.9
	Far	17.5	-0.617	13.8	11.5	12.1	8.0	10.1	7.6
5	Near	25.2	-0.470	18.2	15.2	15.8	10.5	13.3	10.0
	Far	43.7	-0.310	27.5	23.0	24.0	16.0	20.0	15.1
2	Near	48.5	-0.275	31.1	25.9	27.1	18.0	22.8	17.1
	Far	122.3	-0.124	68.5	57.2	59.8	39.8	50.3	37.8
1	Near	66.1	-0.209	40.7	34.0	35.5	23.6	29.9	22.4
	Far	253.1	-0.062	136.5	114.1	119.2	79.4	100.4	75.4
0		100	-0.143	59.5	49.6	51.8	34.5	43.6	33.4
		150	-0.099	85.8	71.7	74.8	49.8	63.0	48.2
		200	-0.076	112.0	93.6	97.7	65.0	82.3	63.0
		250	-0.615	138.1	115.4	120.5	80.2	101.5	77.8
		300	-0.052	164.2	137.2	143.3	95.4	120.7	92.5
		350	-0.045	190.2	159.0	166.0	110.6	139.9	107.2
		400	-0.039	216.3	180.8	188.8	125.7	159.0	121.9
		450	-0.035	242.3	202.6	211.5	140.9	178.2	136.6
		500	-0.032	268.3	224.4	234.2	156.0	197.4	151.3
		550	-0.029	294.3	246.2	257.0	171.2	216.5	166.0
		600	-0.026	320.3	267.9	279.7	186.3	235.7	180.7
		650	-0.024	346.3	289.7	302.4	201.5	254.8	195.3
		700	-0.023	372.3	311.5	325.1	216.6	274.0	210.0
		800	-0.020	424.4	355.0	370.6	246.9	312.3	239.4
	900	-0.018	476.4	398.5	416.0	277.2	350.5	268.8	
	1000	-0.016	528.3	442.0	461.4	307.5	388.8	298.1	

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Hangzhou Hikrobot Co. Ltd.
en.hikrobotics.com

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