

# MVL-MF1618M-5MPE 2/3" 16mm 5MP FA LENS

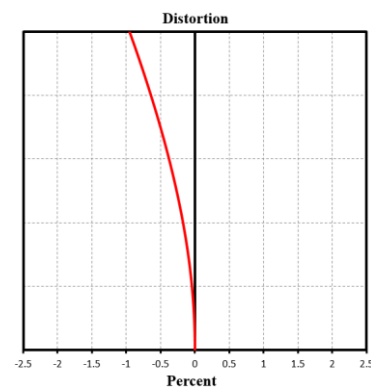
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



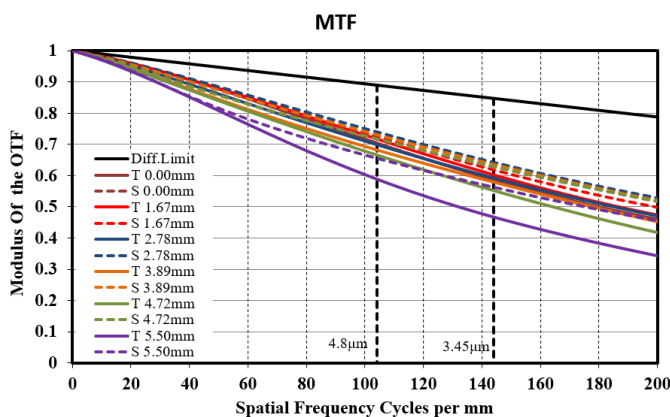
## Key Features

- High resolution and consistency of image clarity
- Lower distortion and higher relative illumination rate
- Achromatic optical system design, Better imaging performance with color camera
- Excellent performance at high and low temperature
- Good optical performance at ultra-short working distance

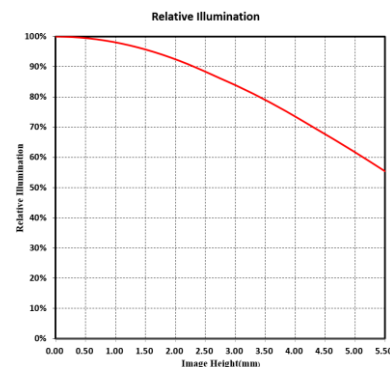
## Distortion



## MTF



## Relative Illumination



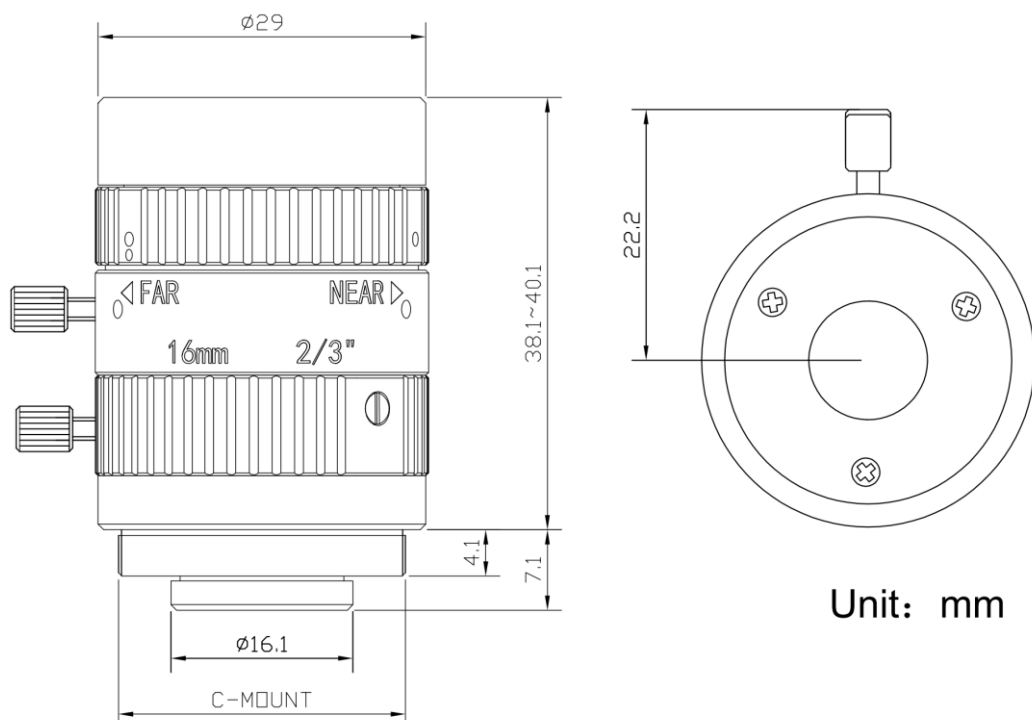
Note: The above curves are the simulate results based on F1.8,  $\beta=-0.032$ , WD=500 mm



## Specification

Model	MVL-MF1618M-5MPE
Parameter	Fixed focal length, Manual iris, 5MP, FA Lens
<b>Performance</b>	
Focal Length	16 mm
F-Number	F1.8 ~ F16
Image Size	Φ11 mm (2/3")
Distortion	0.98%
Minimum Operation Distance	0.2 m
Field of View	D (11.1 mm): 39.98° H (8.45 mm): 30.75° V (7.07 mm): 25.08°
<b>Mechanical</b>	
Iris Control	Manual
Focus Control	Manual
Filter Thread	M27 × 0.5
Mount	C-Mount
Flange Back Length	17.526 mm
Dimension	Φ29 × 38.1~40.1 mm
Weight	68.0 g
Temperature	-10 ~ 50°C
<b>General</b>	
Certification	RoHS2.0

## Dimension



## 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)
20	near	2.1	-1.290	6.6	5.5	5.8	3.8	4.9	3.6
	far	2.4	-1.250	6.9	5.7	6.0	4.0	5.0	3.8
15	near	6.0	-0.990	8.7	7.2	7.5	5.0	6.3	4.7
	far	6.6	-0.940	9.1	7.6	8.0	5.3	6.7	5.0
10	near	13.3	-0.690	12.5	10.4	10.9	7.2	9.1	6.8
	far	15.0	-0.630	13.7	11.4	11.9	7.9	10.0	7.5
5	near	32.4	-0.380	22.4	18.6	19.4	12.9	16.3	12.2
	far	40.6	-0.310	27.3	22.7	23.8	15.7	20.0	15.0
2	near	71.9	-0.200	42.7	35.6	37.2	24.7	31.3	23.4
	far	117.7	-0.120	68.2	56.8	59.4	39.4	50.0	37.4
1	near	108.2	-0.130	61.3	51.2	53.4	35.5	44.9	33.7
	far	246.4	-0.060	136.2	113.7	118.7	78.9	99.9	74.9
0		150	-0.107	82.50	66.80	66.80	46.60	60.00	45.00
		200	-0.080	110.0	89.1	89.1	62.1	80.0	60.0
		250	-0.064	137.5	111.3	111.3	77.6	100.0	75.0
		300	-0.053	165.0	133.7	133.5	93.1	120.0	90.0
		350	-0.046	192.5	155.9	155.8	108.6	140.0	105.0
		400	-0.040	220.0	178.2	178.0	124.1	160.0	120.0
		450	-0.036	247.5	200.4	200.3	139.7	180.0	135.0
		500	-0.032	275.0	222.8	222.5	155.2	200.0	150.0
		550	-0.029	302.5	245.0	244.8	170.7	220.0	165.0
		600	-0.027	330.0	267.3	267.0	186.3	240.0	180.0
		650	-0.025	357.5	289.5	289.3	201.7	260.0	195.0
		700	-0.023	385.0	311.9	311.5	217.2	280.0	210.0
		800	-0.020	440.0	356.4	356.0	248.3	320.0	240.0
	900	-0.018	495.0	401.0	400.5	279.3	360.0	270.0	
	1000	-0.016	550.0	445.5	445.0	310.4	400.0	300.0	

**HIKROBOT**

Hangzhou Hikrobot Co. Ltd.  
en.hikrobotics.com

**MaxxVision®**

Sigmaringer Str. 121  
70567 Stuttgart  
Tel.: 0711 997 996 3  
www.maxxvision.com

© Hangzhou Hikrobot Co., Ltd. All Rights Reserved.

Hangzhou Hikrobot does not tolerate any infringement. Any organization or individual may not imitate or reproduce in whole or in part of the content. The data herein is based on Hikrobot's internal evaluation. Actual data may vary depending on specific configuration and operating condition. The information herein is subject to change without notice. All the content has been checked conscientiously. Nevertheless, Hikrobot shall not be liable to damages resulting from errors, inconsistencies or omissions.