

MVL-MF3518M-5MPE

2/3" 35 mm 5MP FA Lens

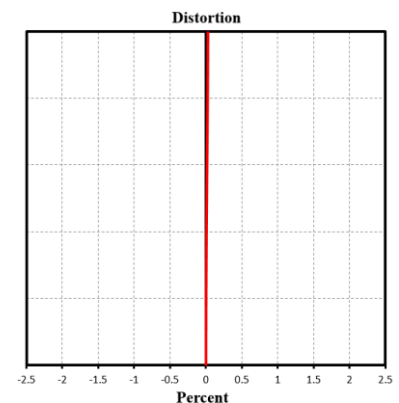
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



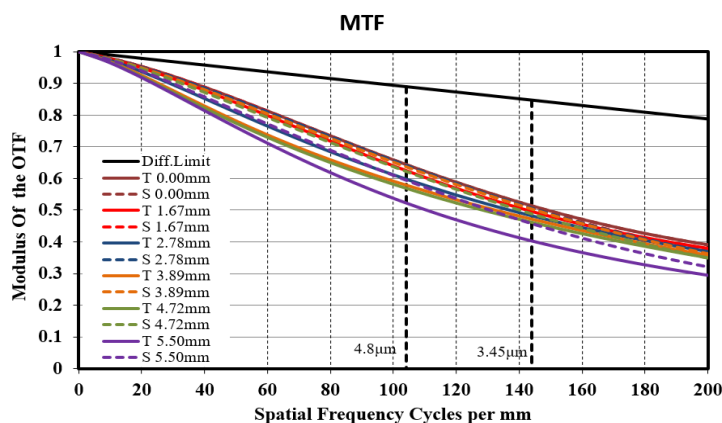
Key Features

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

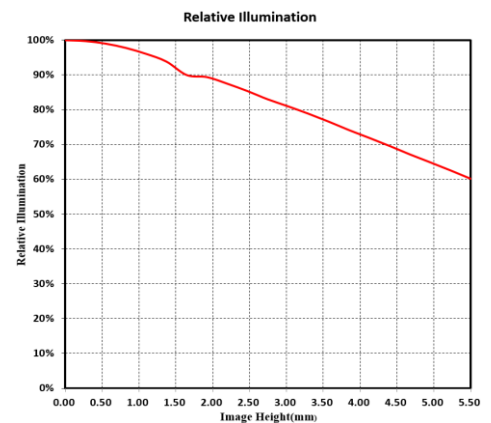
Distortion



MTF



Relative Illumination

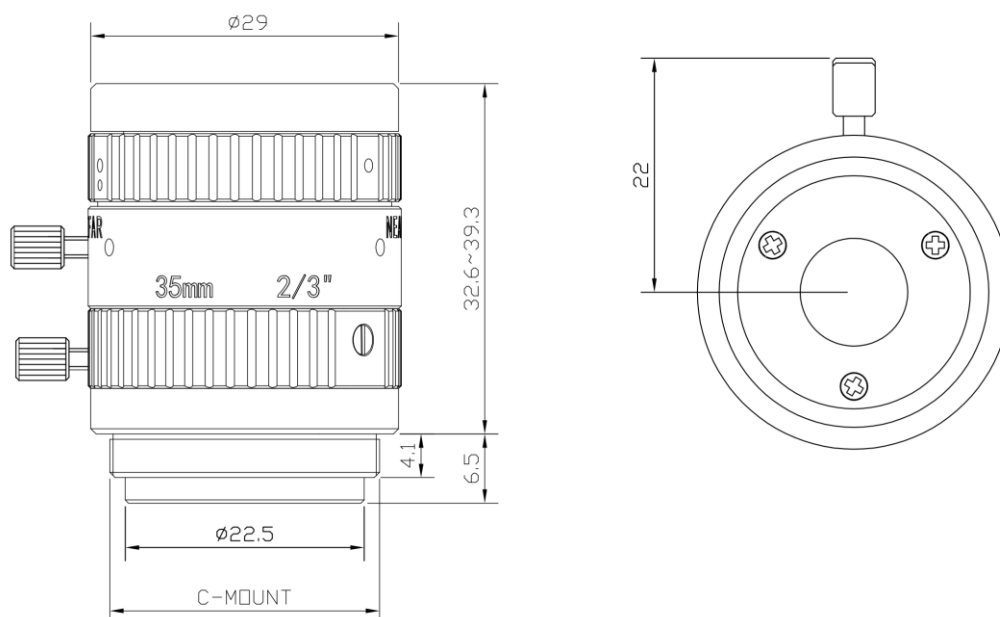


Note: The above curves are the simulate results based on F1.8, $\beta = -0.125$, WD=300 mm.

Specification

Parameter	Model	MVL-MF3518M-5MPE
	Fixed focal length, Manual iris, 5MP, FA Lens	
Performance		
Focal length	35 mm	
F-number	F1.8 to F16	
Image size	Φ11 mm (2/3")	
TV distortion	0.05%	
Minimum object distance	0.25 m	
Field of view	D (11.1 mm): 15.8° H (8.45 mm): 12.1° V (7.07 mm): 10.2°	
Mechanical		
Iris control	Manual	
Focus control	Manual	
Filter thread	M27 × 0.5	
Mount	C-mount	
Flange focal length	17.526 mm	
Dimension	Φ29 mm × 32.6 mm to 39.3 mm (Φ1.1" × 1.3" to 1.5")	
Weight	62.8 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

Ring thickness (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)
30	Near	53.2	-1.060	8.0	6.7	7.0	4.7	5.9	4.4
	Far	60.1	-0.873	9.7	8.1	8.5	5.7	7.2	5.4
25	Near	58.3	-0.916	9.2	7.7	8.1	5.4	6.8	5.1
	Far	67.8	-0.728	11.6	9.7	10.2	6.8	8.6	6.4
20	Near	65.2	-0.771	11.0	9.2	9.6	6.4	8.1	6.1
	Far	79.4	-0.584	14.5	12.1	12.7	8.5	10.7	8.0
15	Near	75.4	-0.627	13.5	11.3	11.8	7.9	10.0	7.5
	Far	98.7	-0.440	19.2	16.1	16.9	11.2	14.2	10.7
10	Near	91.7	-0.483	17.5	14.7	15.4	10.2	12.9	9.7
	Far	137.2	-0.294	28.7	24.0	25.1	16.8	21.2	15.9
5	Near	122.2	-0.338	25.0	20.9	21.9	14.6	18.5	13.9
	Far	252.9	-0.148	57.0	47.7	49.8	33.2	42.0	31.5
2	Near	157.8	-0.250	33.8	28.2	29.5	19.7	24.9	18.7
	Far	599.4	-0.060	141.5	118.5	123.1	82.2	103.8	77.9
1	Near	176.0	-0.221	38.2	32.0	33.4	22.3	28.2	21.2
	Far	1172.9	-0.030	281.3	235.5	243.2	162.3	204.9	153.9
0	250		-0.150	56.3	47.1	49.2	32.8	41.4	31.1
	300		-0.123	68.5	57.3	59.8	39.9	50.4	37.9
	350		-0.105	80.7	67.5	70.5	47.0	59.4	44.6
	400		-0.091	92.9	77.8	81.2	54.1	68.4	51.4
	450		-0.081	105.1	88.0	91.8	61.3	77.4	58.2
	500		-0.072	117.3	98.2	102.5	68.4	86.4	64.9
	550		-0.065	129.5	108.4	113.2	75.5	95.4	71.7
	600		-0.060	141.7	118.6	123.8	82.6	104.4	78.4
	650		-0.055	153.9	128.9	134.5	89.7	113.4	85.2
	700		-0.051	166.1	139.1	145.2	96.8	122.4	91.9
	800		-0.044	190.5	159.5	166.5	111.1	140.4	105.4
	900		-0.039	214.9	179.9	187.8	125.3	158.4	119.0
	1000		-0.035	239.3	200.4	209.1	139.5	176.3	132.4