

MVL-MF2518M-5MPE

2/3" 25mm 5MP FA LENS

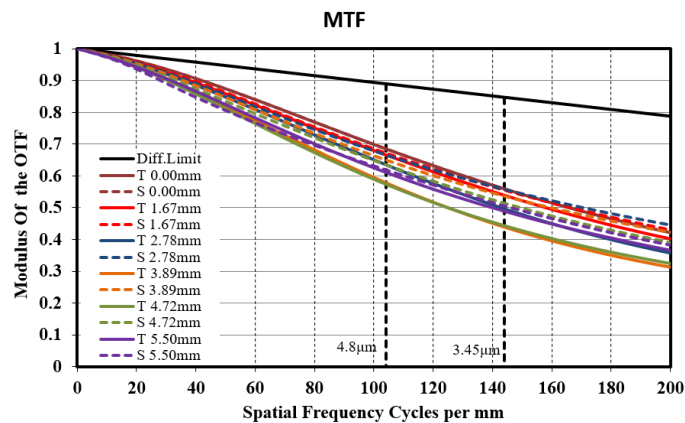
MF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



Key Features

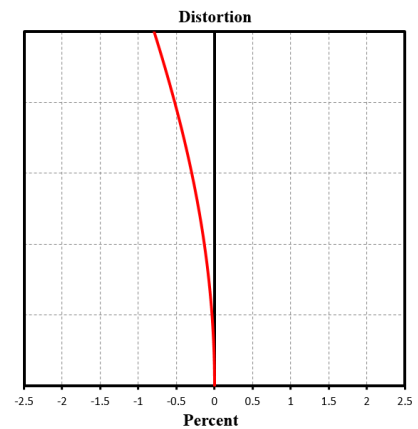
- High resolution and consistency of image clarity.
- Lower distortion and higher relative illumination rate.
- Achromatic optical system design and better imaging performance with color camera.
- Excellent performance at high and low temperature.
- Good optical performance at ultra-short working distance.

MTF

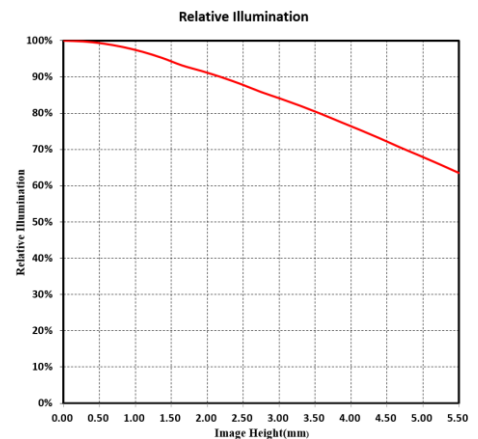


Note: The above curves are the simulate results based on F2.4, $\beta=-0.025$, WD=300 mm.

Distortion



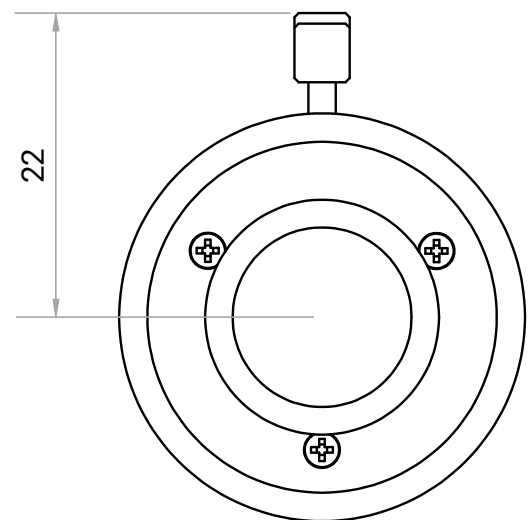
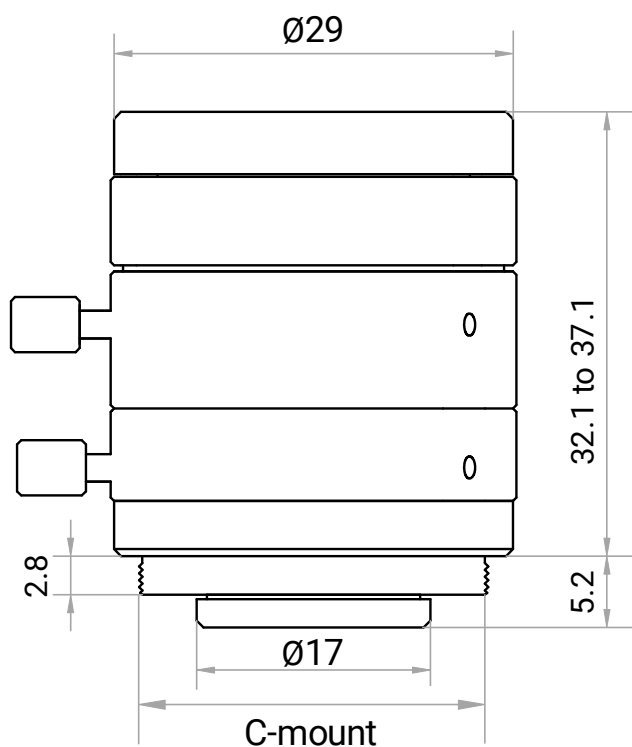
Relative Illumination



Specification

Model	MVL-MF2518M-5MPE
Parameter	Fixed focal length, Manual iris, 5MP, FA Lens
Performance	
Focal length	25 mm
F-number	F1.8 to F16
Image size	Ø11 mm (2/3")
TV distortion	-0.51%
Min. object distance	0.2 m
Field of view	D (11.1 mm): 24.1° H (8.45 mm): 18.4° V (7.07 mm): 15.4°
Mechanical	
Iris control	Manual
Focus control	Manual
Filter thread	M27 × 0.5
Mount	C-mount
Flange focal length	17.526 mm
Dimension	Ø29 mm × 32.1 mm to 37.1 mm (Ø1.1" × 1.3" to 1.5")
Weight	54.0 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	24.4	-1.278	6.6	5.5	5.8	3.8	4.9	3.6
	Far	25.0	-1.204	7.0	5.8	6.1	4.1	5.2	3.9
25	Near	27.9	-1.086	7.8	6.5	6.8	4.5	5.7	4.3
	Far	29.1	-1.001	8.4	7.0	7.4	4.9	6.2	4.6
20	Near	33.0	-0.895	9.4	7.9	8.2	5.5	6.9	5.2
	Far	35.2	-0.800	10.5	8.8	9.2	6.1	7.8	5.8
15	Near	40.8	-0.704	11.9	10.0	10.5	6.9	8.8	6.6
	Far	45.3	-0.599	14.0	11.7	12.3	8.2	10.3	7.8
10	Near	54.3	-0.514	16.4	13.7	14.3	9.5	12.0	9.0
	Far	65.7	-0.399	21.1	17.6	18.4	12.2	15.5	11.6
5	Near	83.9	-0.324	26.0	21.7	22.7	15.1	19.1	14.3
	Far	127.9	-0.198	42.4	35.4	37.1	24.6	31.2	23.4
2	Near	128.0	-0.209	40.2	33.6	35.1	23.3	29.5	22.1
	Far	324.4	-0.077	109.6	91.6	95.7	63.6	80.5	60.4
1	Near	156.0	-0.171	49.3	41.2	42.9	28.5	36.1	27.1
	Far	689.6	-0.036	234.4	195.9	203.8	135.6	171.6	128.7
0		200	-0.133	63.5	53.0	55.4	36.8	46.6	34.9
		250	-0.105	80.5	67.3	70.2	46.7	59.1	44.3
		300	-0.086	97.6	81.5	85.1	56.6	71.7	53.7
		350	-0.073	114.7	95.8	100.0	66.5	84.2	63.1
		400	-0.064	131.7	110.0	114.9	76.4	96.7	72.5
		450	-0.057	148.8	124.3	129.8	86.3	109.3	81.9
		500	-0.051	165.8	138.5	144.7	96.2	121.8	91.3
		550	-0.046	182.9	152.8	159.5	106.1	134.3	100.7
		600	-0.042	199.9	167.0	174.4	116.0	146.8	110.1
		650	-0.039	217.0	181.3	189.3	125.9	159.4	119.5
		700	-0.036	234.0	195.5	204.2	135.8	171.9	128.9
		800	-0.031	268.2	224.0	233.9	155.6	197.0	147.7
	900	-0.028	302.3	252.5	263.7	175.5	222.0	166.5	
	1000	-0.025	336.4	281.1	293.4	195.2	247.1	185.3	