

MVL-MF5028M-10MPE 2/3" 50 mm 10 MP FA Lens

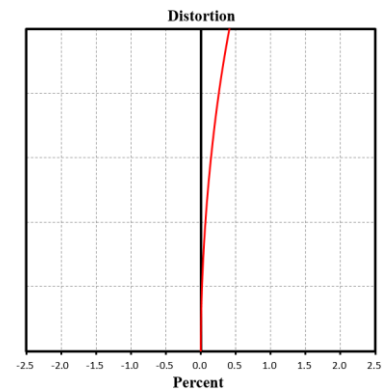
MF-10MPE series FA Lenses are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture, and compact size, it is suitable for machine vision industry applications.



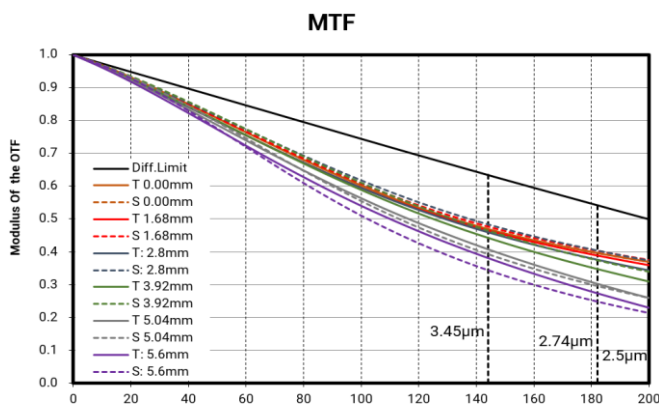
Key Feature

- 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.

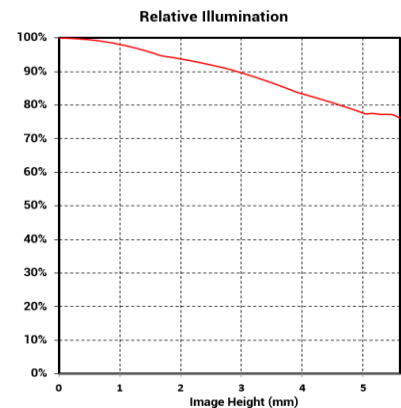
Distortion



MTF



Relative Illumination

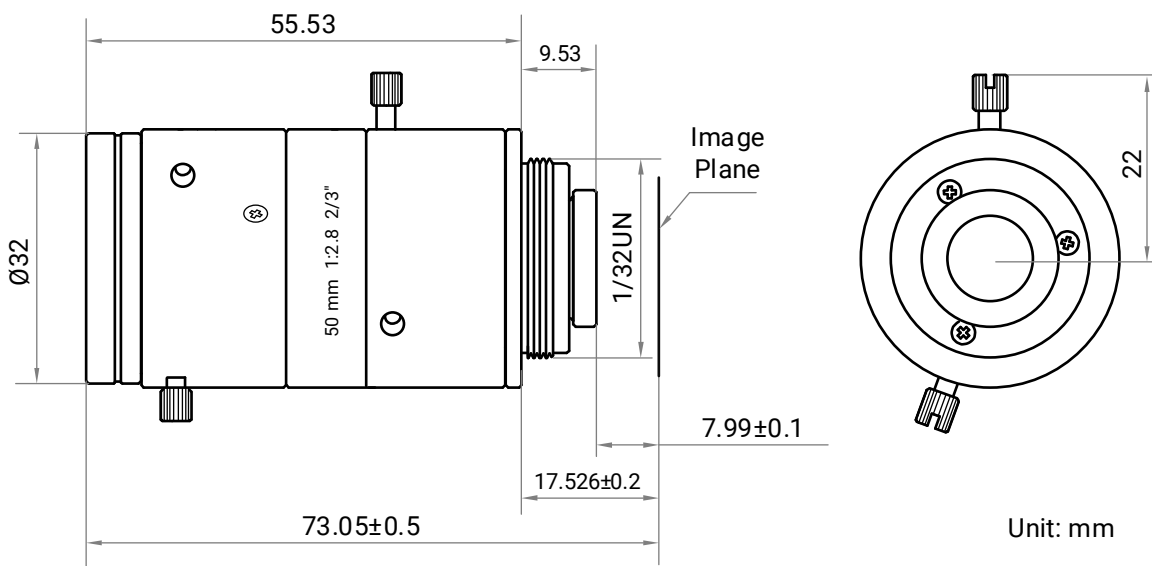


Note: The above curves are the simulate results based on F2.8, $\beta = -0.134$, WD=400 mm.

Specification

Model	MVL-MF5028M-10MPE
Performance	
Focal length	50 mm
F-number	F2.8 to F16
Image size	Φ11.2 mm (2/3")
Distortion	0.14%
Min. object distance	0.237 m
Field of view	D (11.02 mm): 11.01° H (8.45 mm): 8.58° V (7.07 mm): 7.21°
Mechanical	
Iris control	Manual
Focus control	Manual
Filter thread	M27 × P0.5
Mount	C-mount
Flange back length	17.526 mm
Dimension	Φ32 mm × 55.53 mm (Φ1.3" × 2.2")
Weight	94.5 g (0.2 lb.)
Temperature	-10 °C to 50 °C (14 °F to 122 °F)
General	
Certification	RoHS 2.0

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)
10	Near	150.0	-0.462	18.3	15.3	16.0	10.7	13.5	10.1
	Far	267.0	-0.215	39.3	32.9	34.3	22.9	28.9	21.7
5	Near	180.5	-0.356	23.7	19.9	20.8	13.8	17.5	13.1
	Far	480.5	-0.109	77.5	64.9	67.7	45.2	57.1	42.9
2	Near	209.6	-0.292	29.0	24.2	25.3	16.9	21.3	16.0
	Far	1095.0	-0.045	187.6	157.1	164.0	109.4	178.3	103.9
1	Near	223.3	-0.27	31.2	26.2	27.3	18.2	23.0	17.3
	Far	2045.0	-0.024	357.7	299.5	312.6	208.7	263.6	198.1
0		237	-0.249	33.9	29.3	29.6	19.8	25.0	18.8
		250	-0.233	36.2	30.3	31.6	21.1	26.7	20.0
		300	-0.187	45.2	37.8	39.5	26.3	33.3	25.1
		350	-0.156	54.1	45.3	47.3	31.6	39.9	30.0
		400	-0.134	63.1	52.8	55.1	36.8	46.5	34.9
		450	-0.117	72.0	60.3	63.0	42.0	53.1	39.9
		500	-0.104	81.0	67.8	70.8	47.2	59.7	44.8
		550	-0.094	90.0	75.3	78.6	52.5	66.3	49.8
		600	-0.085	98.9	82.8	86.4	57.7	72.9	54.8
		650	-0.078	107.9	90.3	94.3	62.9	79.5	59.7
		700	-0.072	116.8	97.8	102.1	68.1	86.1	64.7
		800	-0.063	134.7	112.8	117.7	78.6	99.3	74.6
		900	-0.055	152.6	127.8	133.4	89.0	112.5	84.5
	1000	-0.049	170.5	142.8	149.0	99.5	125.7	94.4	

HIKROBOT

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