

### MVI -HF0624M-10MP

### 1/1.8" 6mm 10MP FA LENS

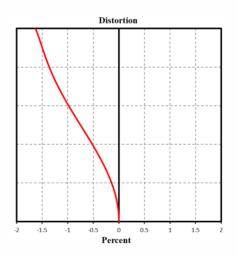
HF-P series FA Lens are optimized for machine vision light sources and sensor, with high resolution, excellent image quality, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications and ideal for industrial cameras.



## **Key Features**

- Ultra high resolution and consistency of image clarity
- Bigger aperture, lower distortion and higher relative illumination rate
- Achromatic optical system design, Better imaging performance with color camera
- Excellent vibration resistance performance, optical axis shifting within pixel level
- Good stability at high and low temperature
- Multilayer and broadband coating design, compatible with visible and near-infrared applications

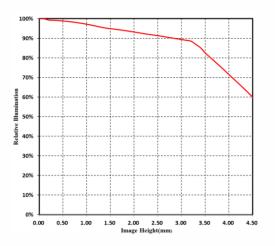
## **Distortion**



## MTF:

#### 0.8 0.7 Modulus Of the OTI 0.60.5 0.4 $25 \mathrm{mm}$ 0.3 0.2 $4.8 \mu m$ 2.4µm 0.1 200 220 40 100 120 140 180 Spatial Frequency Cycles per mm

## **Relative Illumination**



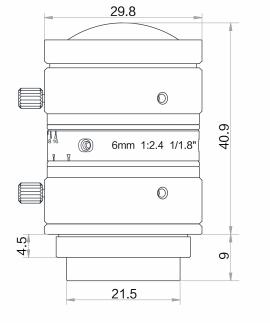
Note: The above curves are the simulate results based on F2.4,  $\beta$ =-0.019, WD=300 mm.

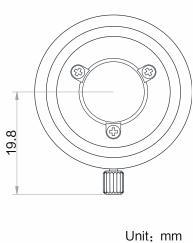


# **Specification**

Model	MVL-HF0624M-10MP			
Parameter	Fixed focal length, Manual iris, 10MP, FA Lens			
Performance				
Focal Length	6 mm			
F-Number	F2.4~F16			
Image Size	Φ9 mm(1/1.8")			
Distortion	0.37%			
Minimum Operation Distance	0.1 m			
Field of View	D (8.96mm): 72.96°			
	H (7.38mm): 62.46°			
	V (4.92mm): 44.05°			
Mechanical				
Iris Control	Manual			
Focus Control	Manual			
Mount	C-Mount			
Flange Back Length	17.526 mm			
Dimension	Ф29.8 × 40.9 mm			
Weight	82.8 g			
Temperature	-10 ~ 50 ℃			
General				
Certification	RoHS2.0			

# **Dimension**





## **Field of View**

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8"		1/2"	
				H(7.38mm)	V(4.92mm)	H(6.22mm)	V(4.67mm)
1	near	13.3	-0.217	36.82	23.48	30.32	22.21
	far	21.1	-0.166	47.85	30.66	39.50	29.01
0	100		-0.054	140.47	92.54	117.71	87.74
	150		-0.037	202.11	133.55	169.64	126.65
	200		-0.028	263.64	174.51	221.50	165.52
	250		-0.023	325.27	215.55	273.45	204.45
	300		-0.019	386.74	256.48	325.26	243.29
	350		-0.017	448.13	297.38	377.02	282.09
	400		-0.015	509.66	338.36	428.89	320.98
	450		-0.013	571.09	379.27	480.68	359.80
	500		-0.012	632.63	420.26	532.56	398.70
	550		-0.011	694.03	461.16	584.32	437.50
	600		-0.010	755.49	502.10	636.14	476.35
	650		-0.009	816.87	542.99	687.88	515.14
	70	0	-0.008	878.46	584.01	739.80	554.07
	80	0	-0.007	1001.42	665.92	843.47	631.78
	90	0	-0.007	1124.39	747.83	947.83	709.51
	1000		-0.006	1247.15	829.60	1050.64	787.10



Hangzhou Hikrobot Co., Ltd. en.hikrobotics.com