HIKROBOT

# MVL-KF1624M-25MP

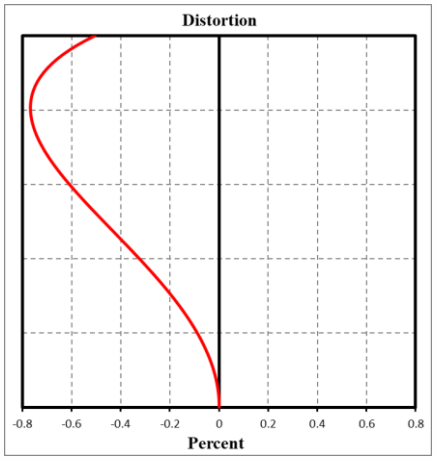
## 1.2” 16mm 25MP FA LENS

KF-P 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.

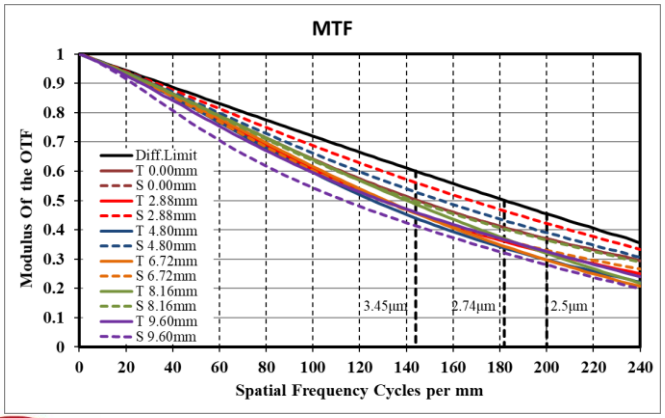
## Key Features

- Ultra high resolution and consistency of image clarity
- 1.2" image Format, bigger aperture, lower distortion, Higher illumination relative
- Achromatic optical system design, Better imaging performance with color camera
- Maintain excellent optical properties at different object distances
- Excellent vibration resistance and stability at high and low temperature performance, optical axis shifting within pixel level
- Multilayer and broadband coating design, compatible with visible and near infrared applications

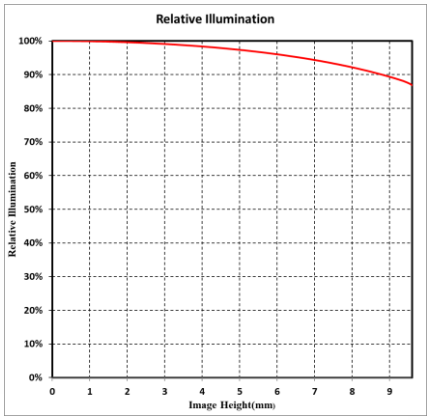
## Distortion




## MTF




## Relative Illumination

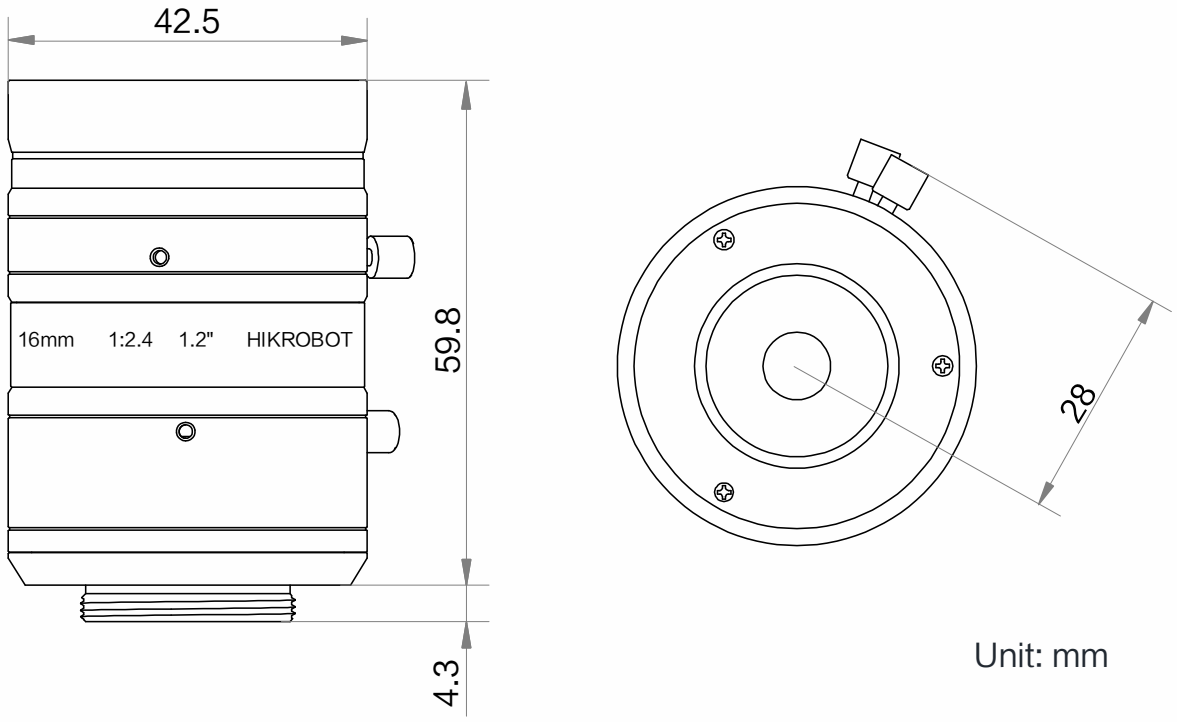



Note: The above curves are the simulate results based on F4, β=-0.05, WD=300 mm

# Specification

| Parameter \ Model | MVL-KF1624M-25MP |
|---|---|
| | Fixed focal length, Manual iris, 25MP, FA Lens |
| **Performance** | |
| Focal Length | 16 mm |
| F-Number | F2.4 ~ F16 |
| Image Size | Φ19.3 mm(1.2'') |
| Distortion | 0.07% |
| Minimum Operation Distance | 0.1 m |
| Field of View | D（19.30mm）：61.61°<br>H（14.60mm）：48.82°<br>V（12.63mm）：42.89° |
| **Mechanical** | |
| Iris Control | Manual |
| Focus Control | Manual |
| Filter Thread | M40.5×0.5 |
| Mount | C-Mount |
| Flange Back Length | 17.526 mm |
| Dimension | Φ42.5×59.8 mm |
| Weight | 186 g |
| Temperature | -10 ~ 50℃ |
| **General** | |
| Certification | RoHS2.0 |

## Dimension




Unit: mm

## Field of View

| Extension (mm) | Working Distance (mm) | Magnification | Field of View (mm) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1.2'' | | 1.1'' | | 2/3'' | |
| | | | H(14.6mm) | V(12.63mm) | H(14.14mm) | V(10.35mm) | H(8.45mm) | V(7.07mm) |
| 1 | near 64.71 | -0.199 | 35.64 | 42.66 | 52.37 | 71.91 | 64.11 | 74.29 |
| | far 165.05 | -0.087 | 81.41 | 97.45 | 119.64 | 164.27 | 146.44 | 169.71 |
| 0 | 100 | -0.139 | 106.05 | 91.65 | 102.69 | 74.97 | 61.11 | 51.08 |
| | 150 | -0.096 | 152.80 | 132.06 | 147.96 | 108.05 | 88.08 | 73.62 |
| | 200 | -0.074 | 199.38 | 172.33 | 193.07 | 141.01 | 114.95 | 96.08 |
| | 250 | -0.060 | 245.89 | 212.54 | 238.12 | 173.91 | 141.78 | 118.50 |
| | 300 | -0.050 | 292.37 | 252.72 | 283.12 | 206.78 | 168.58 | 140.91 |
| | 350 | -0.043 | 338.83 | 292.87 | 328.11 | 239.64 | 195.37 | 163.30 |
| | 400 | -0.038 | 385.27 | 333.02 | 373.09 | 272.49 | 222.16 | 185.69 |
| | 450 | -0.034 | 431.71 | 373.16 | 418.05 | 305.34 | 248.93 | 208.07 |
| | 500 | -0.031 | 478.14 | 413.29 | 463.02 | 338.18 | 275.71 | 230.45 |
| | 550 | -0.028 | 524.56 | 453.42 | 507.97 | 371.01 | 302.48 | 252.83 |
| | 600 | -0.026 | 570.99 | 493.54 | 552.92 | 403.84 | 329.25 | 275.20 |
| | 650 | -0.024 | 617.40 | 533.67 | 597.87 | 436.68 | 356.01 | 297.58 |
| | 700 | -0.022 | 663.82 | 573.79 | 642.82 | 469.50 | 382.78 | 319.95 |
| | 800 | -0.019 | 756.65 | 654.03 | 732.72 | 535.16 | 436.31 | 364.69 |
| | 900 | -0.017 | 849.48 | 734.26 | 822.61 | 600.81 | 489.83 | 409.43 |
| | 1000 | -0.016 | 942.30 | 814.49 | 912.49 | 666.46 | 543.36 | 454.17 |

SCORPION VISION LIMITED
www.scorpionvision.co.uk +44 (0)1590 679333
sales@scorpion.vision