

Hawk Series Line Scan Lenses



Product Features

- **High resolution**
High resolution optical design; Ø63 mm image circle^[1], compatible with (16k) 3.5 µm, (12k) 5 µm, and (8k) 7 µm line scan cameras
- **Low distortion**
Total distortion < 0.22%^[2], Min. distortion as low as 0.005%
- **High uniformity**
High relative illumination across the entire image with low vignetting
- **Wide magnification range**
0.02X - 2.1X

[1] Up to 126 mm image circle for OPT-VHK116/8.6-2.0X
[2] Distortion at primary magnification

Selection Guide

OPT-VHK120/5.8-1.0X

- 1.0X primary magnification
- F#: 5.8
- 120 mm±5% focal length
- Hawk series line scan lenses
- V: V-Mount M: M-Mount
- Brand name

Resolution Comparison

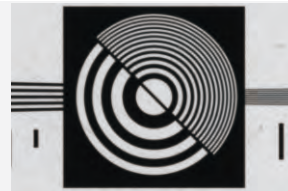
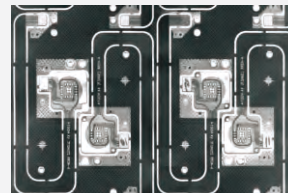


Image taken by Hawk



Image taken by other lens

Application Cases



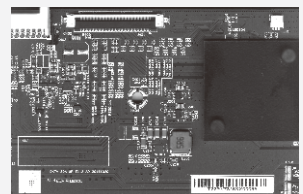
FPC locating and cutting



Film hole inspection on mobile cover



Capacitor surface inspection



Barcode reading on PCB

Model Table

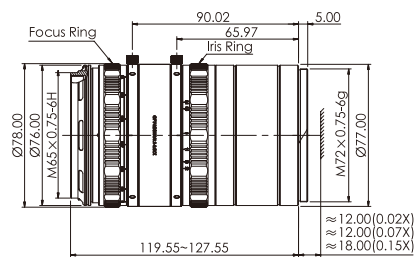
No.	Model	Focal length (mm)	Aperture range	Image circle Ø (mm)	Interface	Weight (kg)	Distortion	Mag.	WD (mm)	Flange focal distance (mm)	Object to image distance (mm)
1	OPT-MHK60/5.1-0.07X	60	F5.1-F22	63	M72	1.06	0.15%	0.02X	3017	12	3149.8
							0.22%	0.07X	874	12	1009.8
							0.28%	0.15X	417	18	557.6
2	OPT-VHK98/3.9-0.23X	98.7	F3.9-F32	63	V58	0.51	0.2%	0.21X	497.9	88	648.8
							0.04%	0.23X	456.9	90	609.8
							0.15%	0.26X	407.6	93	563.5
3	OPT-VHK116/4.3-0.5X	116	F4.3-F32	63	V58	0.65	0.07%	0.475X	289.5	121.8	474.2
							0.005%	0.50X	277.5	124.6	465
							0.1%	0.53X	264.5	128.1	455.5

Model Table

No.	Model	Focal length (mm)	Aperture range	Image circle Ø (mm)	Interface	Weight (kg)	Distortion	Mag.	WD (mm)	Flange focal distance (mm)	Object to image distance (mm)
4	OPT-VHK116/5.4-0.67X	116	F5.4-F45	63	V58	0.68	0.023%	0.64X	219.6	168	454.6
							0.018%	0.67X	212.6	171	450.6
							0.058%	0.7X	204.4	174.8	446.2
5	OPT-VHK120/5.8-1.0X	120	F5.8-F45	63	V58	0.61	0.07%	0.97X	172	172.4	407.3
							0.01%	1.0X	168.5	175.8	407.2
							0.1%	1.04X	164	180.4	407.3
6	OPT-VHK116/8.6-2.0X	116	F8.6-F64	126	V58	0.63	0.07%	1.9X	100.2	293.3	456.4
							0.008%	2.0X	97.1	305	465
							0.06%	2.1X	94.5	316.1	473.5

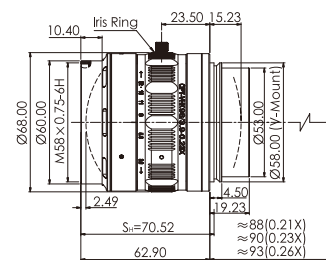
Dimensions (mm)

1.OPT-MHK60/5.1-0.07X

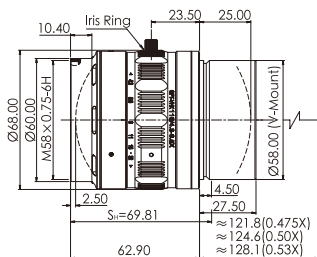


Note: Extension ring OPT-ETB-M72E6 is needed when magnification is over 0.12X.

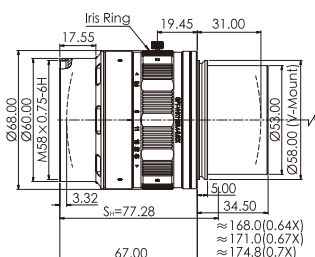
2.OPT-VHK98/3.9-0.23X



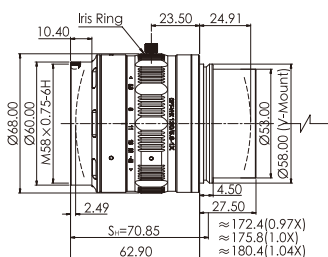
3.OPT-VHK116/4.3-0.5X



4.OPT-VHK116/5.4-0.67X



5.OPT-VHK120/5.8-1.0X



6.OPT-VHK116/8.6-2.0X

