

MV-ID5060M

6 MP Smart Code Reader



RoHS



Introduction

With different lens mounts, MV-ID5060M smart code reader can read multiple types of codes with reading speed up to 90 codes/sec. It adopts Hikrobot's deep learning algorithm to process image with good robustness, and can recognize various complex codes.

Key Feature

- Adopts 6 MP rolling shutter sensor with high performance to provide high-quality images.
- Adopts built-in deep learning algorithm to read codes with good robustness.
- Provides different lens mounts with optional mechanical autofocus lens to achieve automatic focusing.
- Supports multiple communication protocols, including TCP, Serial, FTP, PROFINET, Ethernet/IP, MELSEC, and Fins.
- Adopts controllable light source design providing diversified light.
- Ingress protection rating 67.

Available Model

- M12-mount with white light source, 8 mm focal length: MV-ID5060M-08S-WBN
- M12-mount with white light source, 12 mm focal length: MV-ID5060M-12S-WBN
- M12-mount with white light source, 16 mm focal length: MV-ID5060M-16S-WBN
- M12-mount with white light source, 25 mm focal length: MV-ID5060M-25S-WBN
- C-mount with white light source: MV-ID5060M-00C-WBN
- C-mount without light source: MV-ID5060M-00C-NNN

Applicable Industry

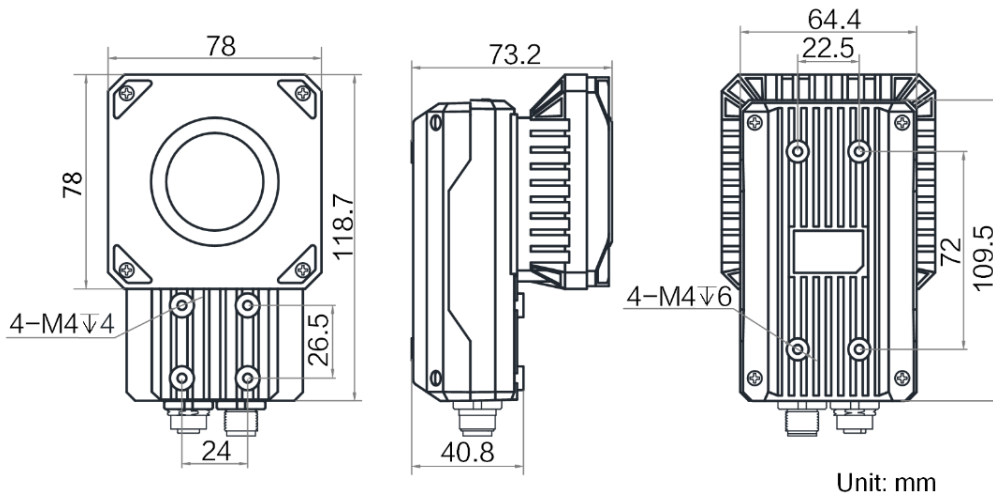
Consumer electronics, food and pharmaceuticals, semiconductor, automobile, etc.

Specification

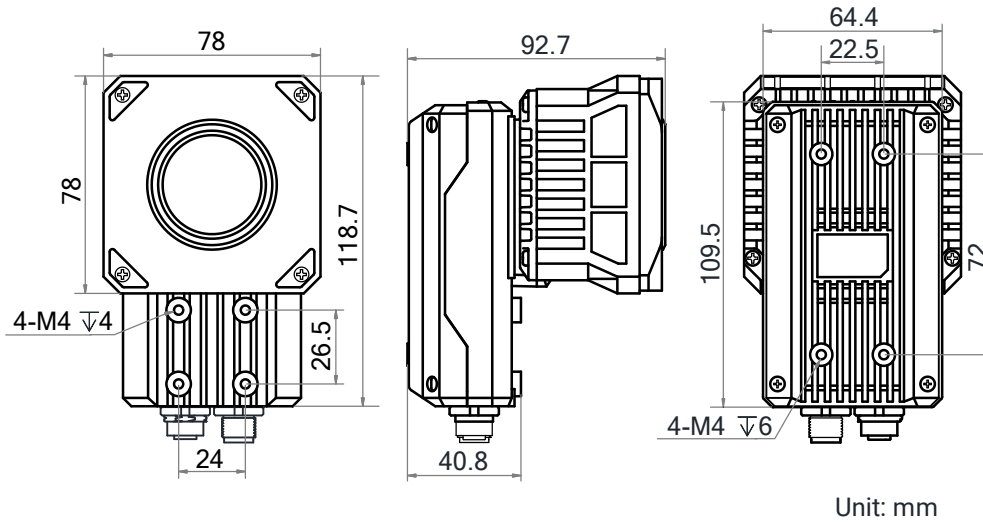
Model	MV-ID5060M-***S-WBN	MV-ID5060M-00C-WBN	MV-ID5060M-00C-NNN
Parameter	6 MP Smart Code Reader		
Performance			
Symbologies	1-dimensional codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, UPCA, UPCE, ITF 14, ITF 25, Matrix 25, MSI, China Post, Code 11		
	2-dimensional codes: QR Code, Data Matrix		
	Stack codes: PDF 417		
Max. frame rate	30 fps		
Max. reading speed	90 codes/sec		
Sensor type	CMOS, rolling shutter		
Pixel size	2.4 μm × 2.4 μm		
Sensor size	1/1.8"		
Resolution	3072 × 2048		
Exposure time	16 μs to 1 sec		
Gain	0 dB to 40 dB		
Mono/color	Mono		
Communication protocol	SmartSDK, TCP Client, Serial, FTP, TCP Server, Profinet, Ethernet/IP, MELSEC, Fins, ModBus, SLMP		
Electrical feature			
Data interface	Gigabit Ethernet (1000 Mbit/s)		
Digital I/O	12-pin M12 connector provides power and I/O, including opto-isolated input (LineIn 0/1/2) × 3, opto-isolated output (LineOut 3/4/5) × 3, RS-232 input × 1, and RS-232 output × 1.		
Power supply	24 VDC		
Max. power consumption	20 W @ 24 VDC (light source is enabled)		
Mechanical			
Focal length	8 mm/12 mm/16 mm/25 mm (0.3"/0.5"/0.6"/1.0")	--	
Lens mount	M12-mount, mechanical autofocus lens	C-mount	
Lens cap	Transparent lens cap. Polarization lens cap is optional.	Transparent lens cap.	
Light source	White light. Red, blue, or infrared light is optional.		Light source is not included.
Indicator	Power indicator (PWR), network indicator (LNK/ACT), and user-defined indicator (U1/U2).		
Dimension	118.7 mm × 78 mm × 73.2 mm (4.7" × 3.1" × 2.9")	118.7 mm × 78 mm × 92.7 mm (4.7" × 3.1" × 3.7")	109.5 mm × 64.4 mm × 109 mm (4.3" × 2.5" × 4.3")
Weight	Approx. 520 g (1.1 lb.)	Approx. 560 g (1.2 lb.)	Approx. 400 g (0.9 lb.)
Ingress protection	IP67 (under proper installation of waterproof lens cap)		
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)		
Humidity	20% RH to 95% RH (non-condensation)		
General			
Client software	IDMVS		
Certification	CE, RoHS, KC		

Dimension

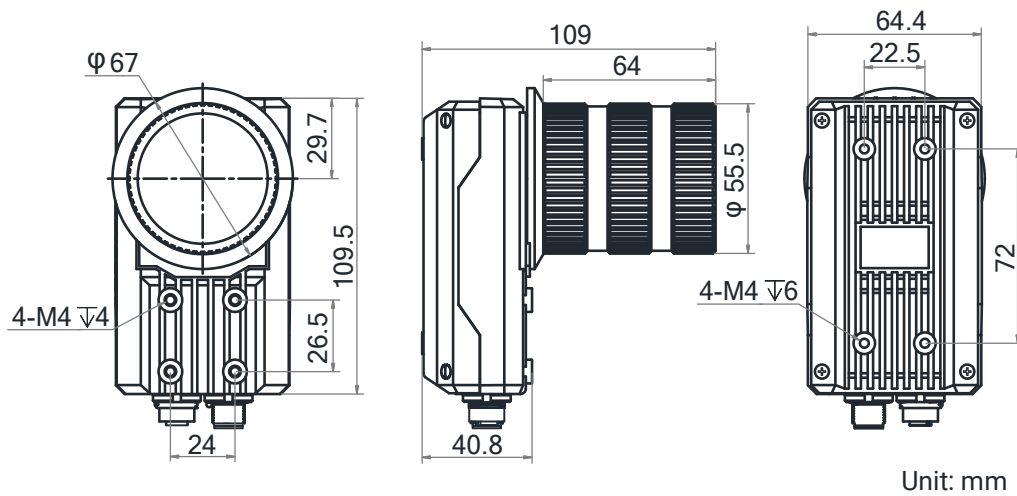
M12-mount with light source structure:



C-mount with light source structure:



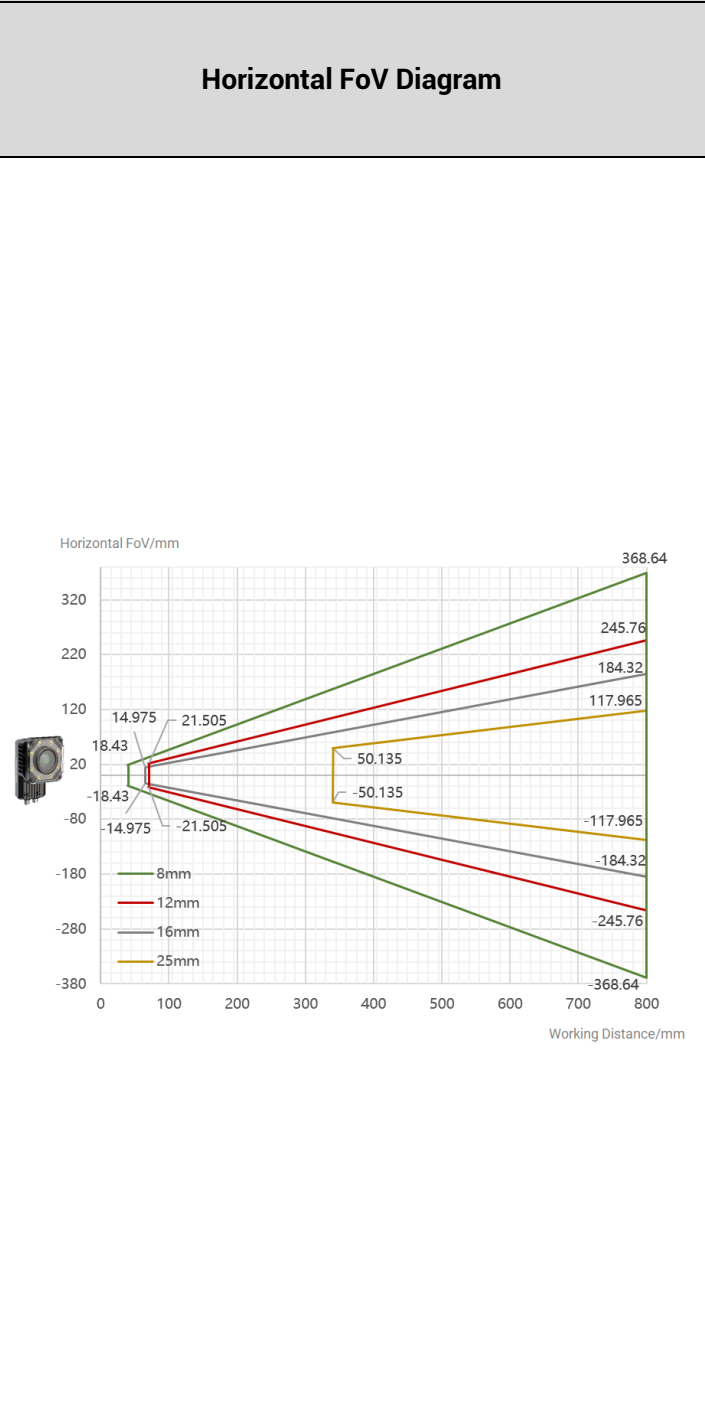
C-mount without light source structure:



Detection Range

MV-ID5060M-08/12/16/25S-WBN (Unit: mm)

Lens Focal Length	Working Distance	FoV		1D Single Pixel Accuracy	2D Single Pixel Accuracy
		H	V		
8	40	52	34	0.012	0.036
	100	100	90	0.030	0.090
	200	192	125	0.060	0.180
	300	282	190	0.090	0.270
	400	372	250	0.120	0.360
	500	460	311	0.150	0.450
	600	543	369	0.180	0.540
	700	635	429	0.210	0.630
	800	730	499	0.240	0.720
12	70	54	35	0.014	0.042
	100	72	48	0.020	0.060
	200	131	85	0.040	0.120
	300	194	127	0.060	0.180
	400	250	165	0.080	0.240
	500	316	210	0.100	0.300
	600	374	244	0.120	0.360
	700	432	290	0.140	0.420
	800	495	332	0.160	0.480
16	65	35	22	0.010	0.029
	100	42	27	0.015	0.045
	200	99	65	0.030	0.090
	300	140	94	0.045	0.135
	400	188	126	0.060	0.180
	500	238	159	0.075	0.225
	600	282	188	0.090	0.270
	700	328	218	0.105	0.315
	800	366	245	0.120	0.360
25	340	100	66	0.033	0.098
	400	114	76	0.038	0.115
	500	144	95	0.048	0.144
	600	172	115	0.058	0.173
	700	205	135	0.067	0.202
	800	233	155	0.077	0.230



MV-ID5060M-00C-NNN with MVL-KF12(16/25)28M-12MP lens (Unit: mm)

Lens Focal Length	Working Distance	FoV		1D Single Pixel Accuracy	2D Single Pixel Accuracy	Horizontal FoV Diagram
		H	V			
12	60	36.86	24.58	0.012	0.036	
	100	61.44	40.96	0.02	0.06	
	200	122.88	81.92	0.04	0.12	
	300	184.32	122.88	0.06	0.18	
	400	245.76	163.84	0.08	0.24	
	500	307.2	204.8	0.1	0.3	
	600	368.64	245.76	0.12	0.36	
16	80	36.86	24.58	0.012	0.036	
	100	46.08	30.72	0.02	0.06	
	200	92.16	61.44	0.04	0.12	
	300	138.24	92.16	0.06	0.18	
	400	184.32	122.88	0.08	0.24	
	500	230.4	153.6	0.1	0.3	
	600	276.48	184.32	0.12	0.36	
25	125	36.86	24.58	0.012	0.036	
	200	58.98	39.32	0.015	0.045	
	300	88.47	58.98	0.03	0.09	
	400	117.96	78.64	0.045	0.135	
	500	147.46	98.3	0.06	0.18	
	600	176.95	117.96	0.075	0.225	
35	175	36.86	24.58	0.09	0.27	
	200	42.13	28.09	0.012	0.036	
	300	63.2	42.13	0.019	0.058	
	400	84.26	56.17	0.029	0.086	
	500	105.33	70.22	0.038	0.115	
	600	126.39	84.26	0.048	0.144	