

MV-ID5120XM

12 MP Industrial Code Reader

**RoHS**

Introduction

MV-ID5120XM industrial code reader can read different types of codes with reading speed up to 84 codes/sec. It adopts a 12 MP ultra-high resolution global shutter sensor and is equipped with C-mount lenses to achieve ultra-wide field of view and depth of field for code reading.

Available Model

MV-ID5120XM-00C-NNN

Note

The device's package includes the code reader, quick start guide, installation bracket, and screw package, but cables should be purchased separately.

Key Features

- Adopts a 12 MP high-performance global shutter sensor for high-speed image acquisition and high image quality.
- Adopts built-in deep learning algorithm to read codes with good robustness.
- Supports code score and quality evaluation for code printing.
- Supports communication protocols including TCP, Serial, FTP, Profinet, Melsec/SLMP, Ethernet/IP, ModBus, UDP, and FINS.
- Supports ingress protection IP67.

Applicable Industry

PCB, automobile, food and drug, new energy, consumer electronics, etc.

Specification

Model	MV-ID5120XM-00C-NNN
Performance	
Symbologies	1D codes: Code 39, Code 93, Code 128 (GS1-128 included), CodaBar, EAN 8, EAN 13, UPCA, UPCE, ITF 14, ITF 25, Matrix 25, MSI, China Post, Code 11, Industrial 2of5, and Pharmacode
	2D codes: QR Code (GS1-QR included), Data Matrix (GS1-DM included), MicroQR, AZTEC, HanXin
	Stacked codes: PDF417, MicroPDF417
Max. frame rate	40 fps
Max. reading speed	84 codes/sec
Sensor type	CMOS, global shutter
Pixel size	3.45 μm $\times$ 3.45 μm
Sensor size	1.1"
Resolution	4096 $\times$ 3072
Exposure time	35 μs to 1 sec
Gain	0 dB to 37 dB
Mono/color	Mono
Communication protocol	SmartSDK, TCP Client, Serial, FTP, TCP Server, Profinet, MELSEC/SLMP, Ethernet/IP, ModBus, UDP, Fins
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) $\times$ 3, opto-isolated output (LineOut 3/4/5) $\times$ 3, RS-232 input $\times$ 1, and RS-232 output $\times$ 1 Supports smart tune and device triggering via pressing the top button.
Power supply	24 VDC
Max. power consumption	Avg.: 8 W @ 24 VDC Max.: 14.4 W @ 24 VDC
Mechanical	
Lens mount	C-mount
Light source	No built-in light source
Lens cap	Transparent lens cap
Indicator	Power indicator (PWR), network indicator (LNK/ACT), and user-defined indicator (U1/U2)
Dimension	Straight angle: 112.3 mm $\times$ 54 mm $\times$ 110 mm (4.4" $\times$ 2.1" $\times$ 4.3") Right angle: 88.7 mm $\times$ 54 mm $\times$ 132.4 mm (3.5" $\times$ 2.1" $\times$ 5.2")
Weight	Approx. 370 g (0.8 lb.)
Ingress protection	IP67 (under proper installation of waterproof lens cap)
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$)
Humidity	20% RH to 95% RH (no condensation)
General	
Client software	IDMVS
Certification	CE, RoHS, KC

Detection Range

MV-ID5120XM-00C-NNN Equipped with MVL-KF12(/16/25/35/50)28M-12 MP Lens (Unit: mm)

Lens Focal Length	Working Distance	Field of View		1D Min. Resolution*	2D Min. Resolution△	Diagram of Field of View
		H	V			
12	100	118	88	0.029	0.086	
	200	236	177	0.058	0.173	
	500	589	442	0.144	0.431	
	1000	1178	883	0.288	0.863	
	1500	1766	1325	0.431	1.294	
	2000	2355	1766	0.575	1.725	
16	100	88	66	0.022	0.065	
	200	177	132	0.043	0.129	
	500	442	331	0.108	0.323	
	1000	883	662	0.216	0.647	
	1500	1325	994	0.323	0.970	
	2000	1766	1325	0.431	1.294	
25	100	57	42	0.014	0.041	
	200	113	85	0.028	0.083	
	500	283	212	0.069	0.207	
	1000	565	424	0.138	0.414	
	1500	848	636	0.207	0.621	
	2000	1130	848	0.276	0.828	
35	200	81	61	0.020	0.059	
	500	202	151	0.049	0.148	
	800	323	242	0.079	0.237	
	1000	404	303	0.099	0.296	
	1500	606	454	0.148	0.444	
	2000	807	606	0.197	0.591	
50	300	85	64	0.021	0.062	
	500	141	106	0.035	0.104	
	800	226	170	0.055	0.166	
	1000	283	212	0.069	0.207	
	1500	424	318	0.104	0.311	
	2000	565	424	0.138	0.414	

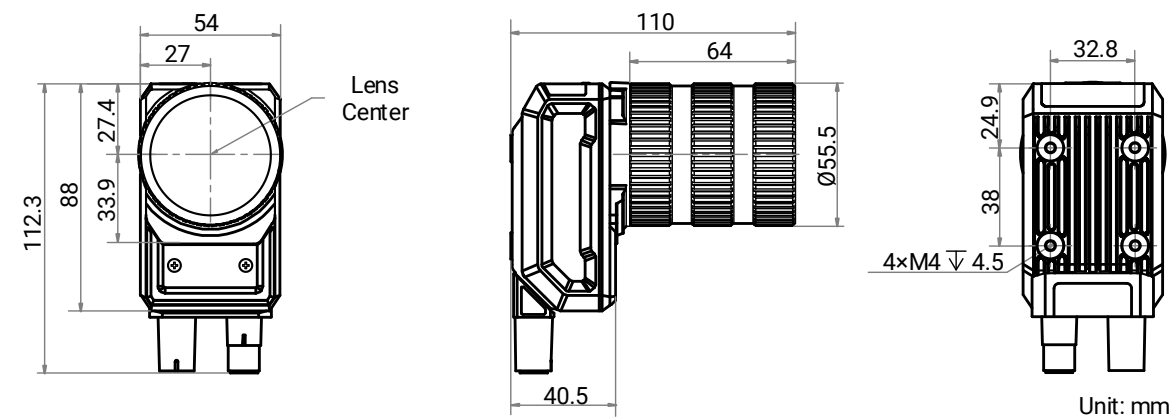
1D Min. Resolution (mm)*: Field of view (long side) / resolution (long side) × 1.

2D Min. Resolution (mm)△: Field of view (long side) / resolution (long side) × 3.

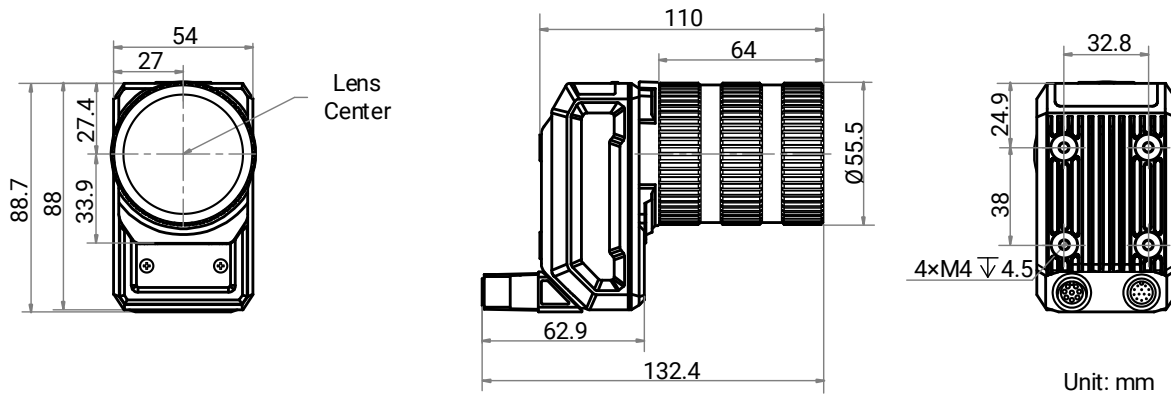
Dimension



Device (Straight Angle)



Device (Right Angle)



Installation Bracket

