HIKROBOT

MV-SC5100XC

10 MP Color Smart Camera

MV-SC5100XC smart camera is developed based on high-performance embedded platform with strong calculation performance. It integrates VM functions and AI deep learning algorithm, and can use more than 140 algorithms. It adopts multiple interfaces for supporting display, keyboard, mouse, etc.

Key Features

- Adopts AI deep learning algorithm to achieve OCR, object recognition, defect detection, etc.
- Integrates VM functions, and supports more than 140 algorithms.
- Adopts multiple I/O interfaces, such as multiple input/output signals.
- Supports multiple communication protocols.
- Supports indicators displaying device status for easy debugging and maintenance.
- Supports ingress protection IP67.

Available Models

- 8 mm focal length: MV-SC5100XC-08M-WBN
- 12 mm focal length: MV-SC5100XC-12M-WBN
- 16 mm focal length: MV-SC5100XC-16M-WBN

Typical Application

- Consumer electronics
- Food and pharmaceutical
- Packaging

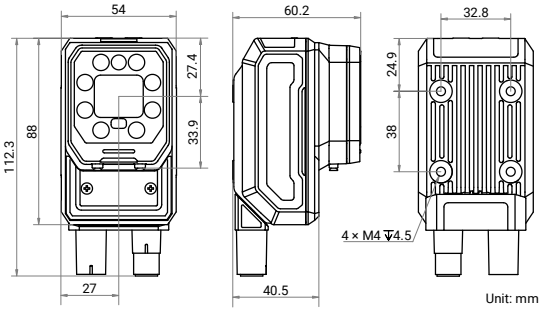
Specification

Model	MV-SC5100XC-08M-WBN	MV-SC5100XC-12M-WBN	MV-SC5100XC-16M-WBN
Tool			
Function module	Vision Master Platform (include deep learning module)		
Communication protocol	TCP, UDP, Modbus, Serial Port, PROFINET, EtherNet/IP, Fins, MC, FTP, etc.		
Camera			
Sensor type	CMOS, rolling shutter		
Pixel size	2 μm × 2 μm		
Sensor size	1/1.8"		
Resolution	4096 × 2816		
Max. frame rate	10 fps		
Gain	0 dB to 37 dB		
Exposure time	33 μs to 150 ms		
Pixel format	Mono 8, RGB 8		
Mono/color	Color		
Platform			
Memory	8 GB		
Storage	64 GB		
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 × 3 (Line 0/1/2), opto-isolated output × 3 (Line 3/4/5), RS-232 × 1		
Power supply	24 VDC		
Power consumption	Avg. 12.3 W @ 24 VDC (with included light source on) Max. 48 W @ 24 VDC (with included light source on)		
Mechanical			
Focal length	8 mm	12 mm	16 mm
Lens mount	M12-mount, mechanical focus		
Lens cap	Half polarization lens cap by default. Transparent or full polarization lens cap is optional.		
Light source	White light source by default. Red, blue, or IR light source is optional		
Indicator	Power indicator (PWR), network indicator (LNK), and user-defined indicator (U1/U2)		
Dimension	Straight angle: 112.3 mm × 54 mm × 60.2 mm (4.4" × 2.1" × 2.4") Right angle: 88.7 mm × 54 mm × 82.5 mm (3.5" × 2.1" × 3.2")		
Weight	Approx. 370 g (0.8 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 (no condensation)		
Vibration resistance	Meets standard IEC 60068-2-6:2007. Device only (without installation bracket): 10 Hz to 55 Hz, 1.5 mm peak-to-peak amplitude, 2 hours per axis (X, Y, Z)		

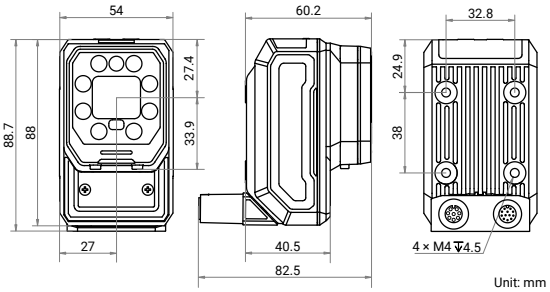
Shock resistance	Meets standard IEC 60068-2-27:2008. Device only (without installation bracket): 30 g / 11 ms, half-sine wave, 500 shocks per axis (6 directions)
General	
Certification	CE, KC

Dimension

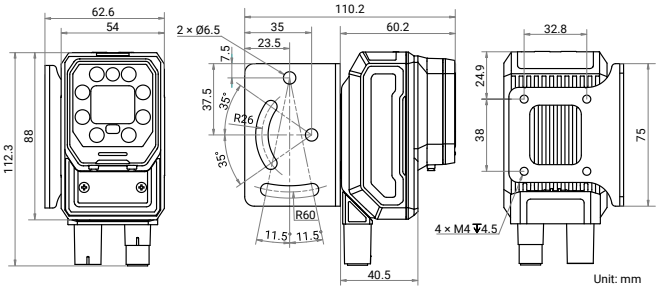
Device (Straight Angle):



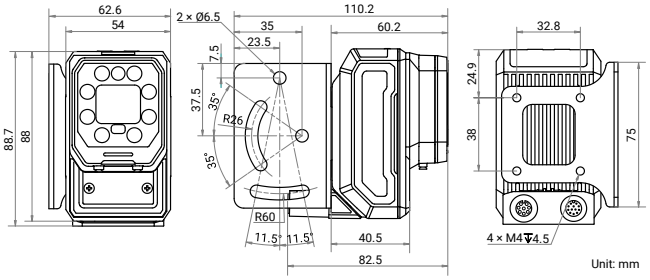
Device (Right Angle):



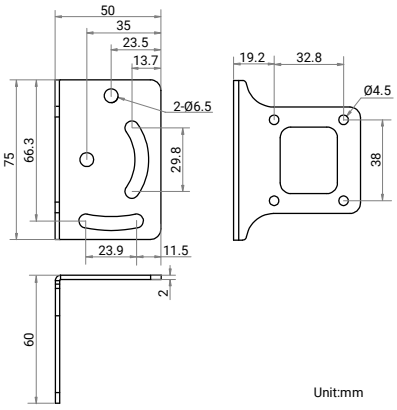
Device and Installation Bracket (Straight Angle):



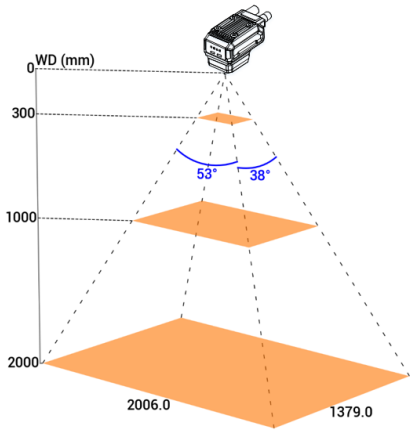
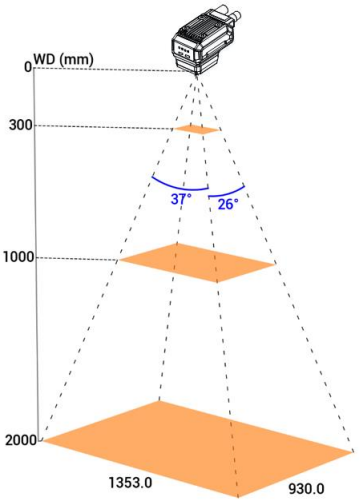
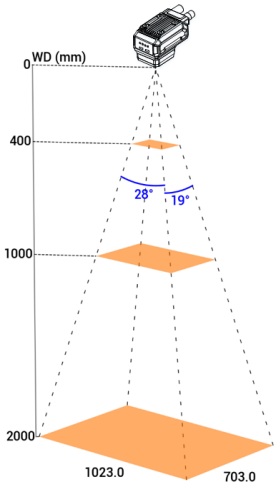
Device and Installation Bracket (Right Angle):



Installation Bracket:



Detection Range

MV-SC5100XC-08/12/16M-WBN (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		Single Pixel Accuracy	Field of View Diagram
		H	V		
8	25	25	17	0.01	
	100	100	69	0.02	
	200	201	138	0.05	
	300	301	207	0.07	
	600	602	414	0.15	
	1000	1003	690	0.24	
	2000	2006	1379	0.49	
12	60	41	28	0.01	
	100	68	46	0.02	
	200	135	93	0.03	
	300	203	139	0.05	
	600	406	279	0.10	
	1000	676	465	0.17	
	2000	1353	930	0.33	
16	100	51	35	0.01	
	150	77	53	0.02	
	300	153	105	0.04	
	400	205	141	0.05	
	600	307	211	0.07	
	1000	511	352	0.12	
	2000	1023	703	0.25	

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