MV-SC5050XC

5 MP Smart Camera

Introduction

MV-SC5050XC 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.

Available Model

- 8 mm focal length smart camera: MV-SC5050XC-08M-WBN
- 12 mm focal length smart camera: MV-SC5050XC-12M-WBN
- 16 mm focal length smart camera: MV-SC5050XC-16M-WBN

Applicable Industry

Consumer electronics, food and pharmaceutical, packaging, etc.

Key Features

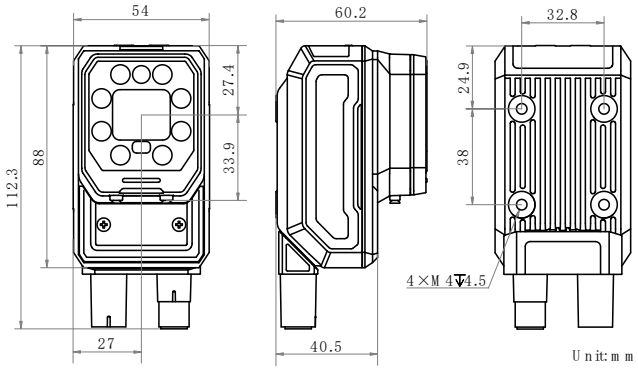
- Adopts AI deep learning algorithm to achieve OCR, object recognition, defect detection, etc.
- Integrates VM functions and supports more than 140 algorithms.
- Adopts multiple I/O interfaces, such as multiple input/output signals.
- Supports multiple communication protocols.
- Supports indicators displaying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

Specification

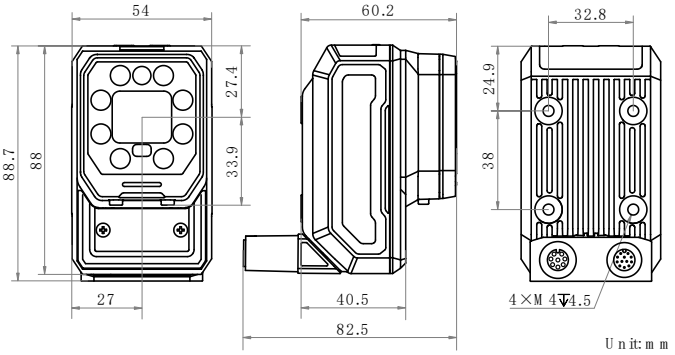
Model	MV-SC5050XC-08M-WBN	MV-SC5050XC-12M-WBN	MV-SC5050XC-16M-WBN
Tool			
Function module	Vision Master Platform (include deep learning module)		
Communication protocol	TCP, UDP, Modbus, Serial Port, PROFINET, EtherNet/IP, Fins, MC, FTP, etc.		
Camera			
Sensor type	CMOS, global shutter		
Pixel size	3.45 μm × 3.45 μm		
Sensor size	1/1.45"		
Resolution	2432 × 2048		
Max. frame rate	60 fps		
Gain	0 dB to 37 dB		
Exposure time	15 μs to 3000 μs		
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	Typ. 12.3 W @ 24 VDC (with included light source on) Max. 48 W @ 24 VDC (with included light source on)		
Mechanical			
Lens mount	M12-mount, mechanical focus		
Focal length	8 mm	12 mm	16 mm
Lens cap	Half polarization lens cap by default. Transparent, full polarization, or diffused 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)		
General			
Certification	CE, KC		

Dimension

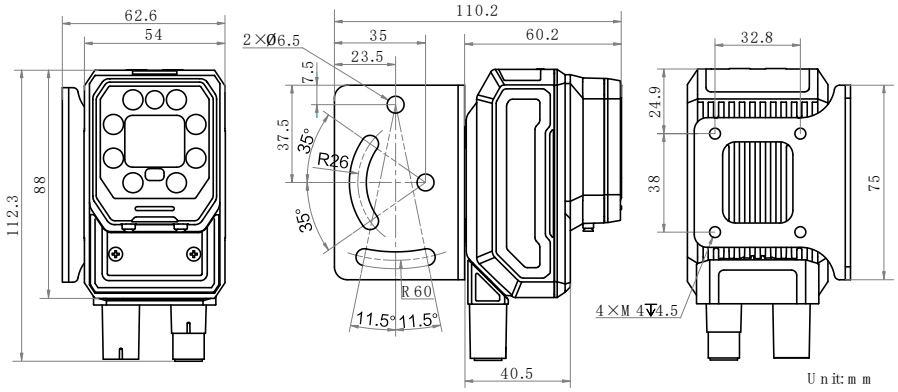
Device (Straight Angle):



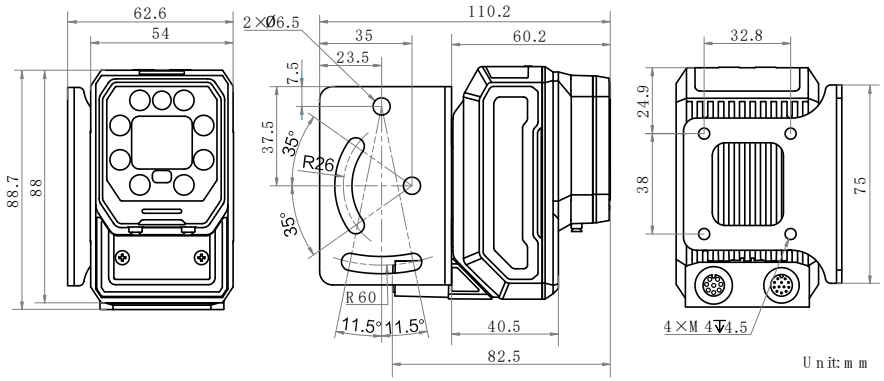
Device (Right Angle):



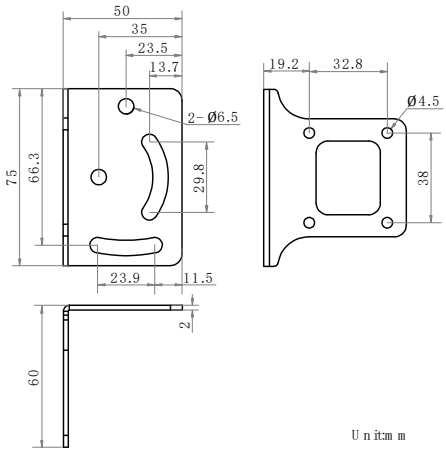
Device and Installation Bracket (Straight Angle):



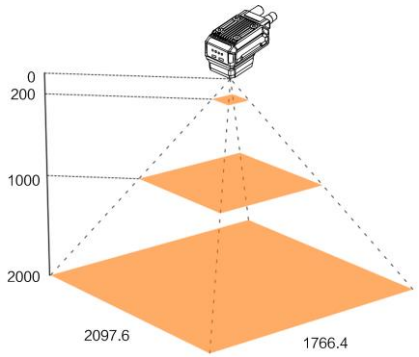
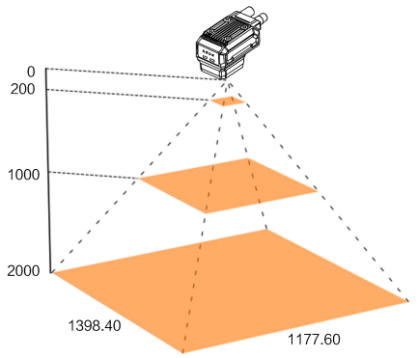
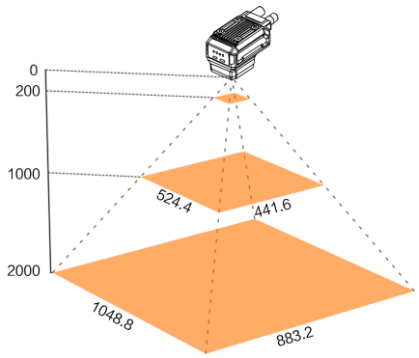
Device and Installation Bracket (Right Angle):



Installation Bracket:



Detection Range

MV-SC5050XC-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	26.22	22.08	0.011	
	100	104.88	88.32	0.043	
	200	209.76	176.64	0.086	
	300	314.64	264.96	0.129	
	500	524.4	441.6	0.216	
	1000	1048.8	883.2	0.431	
	2000	2097.6	1766.4	0.863	
12	60	41.952	35.328	0.017	
	100	69.92	58.88	0.029	
	200	139.84	117.76	0.058	
	300	209.76	176.64	0.086	
	500	349.6	294.4	0.144	
	1000	699.2	588.8	0.288	
	2000	1398.4	1177.6	0.575	
16	100	52.44	44.16	0.022	
	200	104.88	88.32	0.043	
	300	157.32	132.48	0.065	
	400	209.76	176.64	0.086	
	500	262.2	220.8	0.108	
	1000	524.4	441.6	0.216	
	2000	1048.8	883.2	0.431	