

# MV-SC7050PM

5 MP Smart Camera



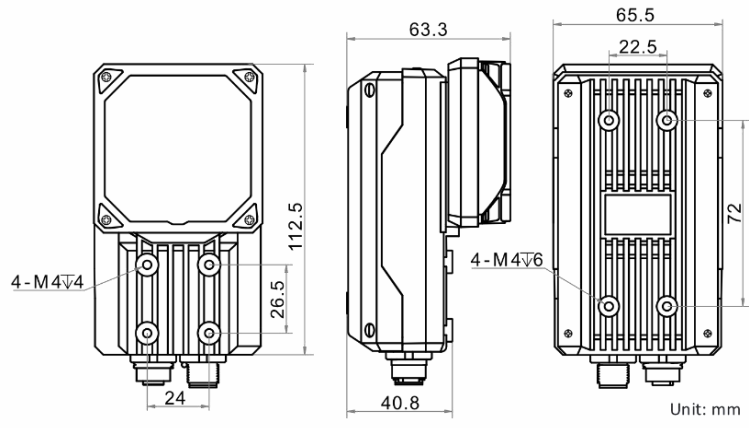
## Introduction

MV-SC7050PM smart camera is developed based on high-performance embedded platform. It adds vision algorithms like character recognition, object recognition, object sorting, etc. after integrating general vision algorithms. With mechanical autofocus function, the smart camera can meet different scenario demands. It can be easily configured and operated via the SCMVS client software, and uses Ethernet to output vision tool results and customized results.

## Available Model

- 12 mm focal length: MV-SC7050PM-12S-WBN
- 16 mm focal length: MV-SC7050PM-16S-WBN

## Dimension



## Key Feature

- Built-in deep learning algorithms to achieve character and object recognition, object sorting, etc.
- Integrates general vision algorithms to achieve location, measurement, recognition, etc.
- Supports mechanical autofocus function to achieve fast debugging and configuration.
- Big memory and storage support image savings in loop with high performance.
- Adopts multiple I/O interfaces for controlling.
- Supports multiple communication protocols.
- Supports indicators displaying device status.

## Applicable Industry

Consumer electronics, food and beverage, pharmaceutical, automobile, etc.



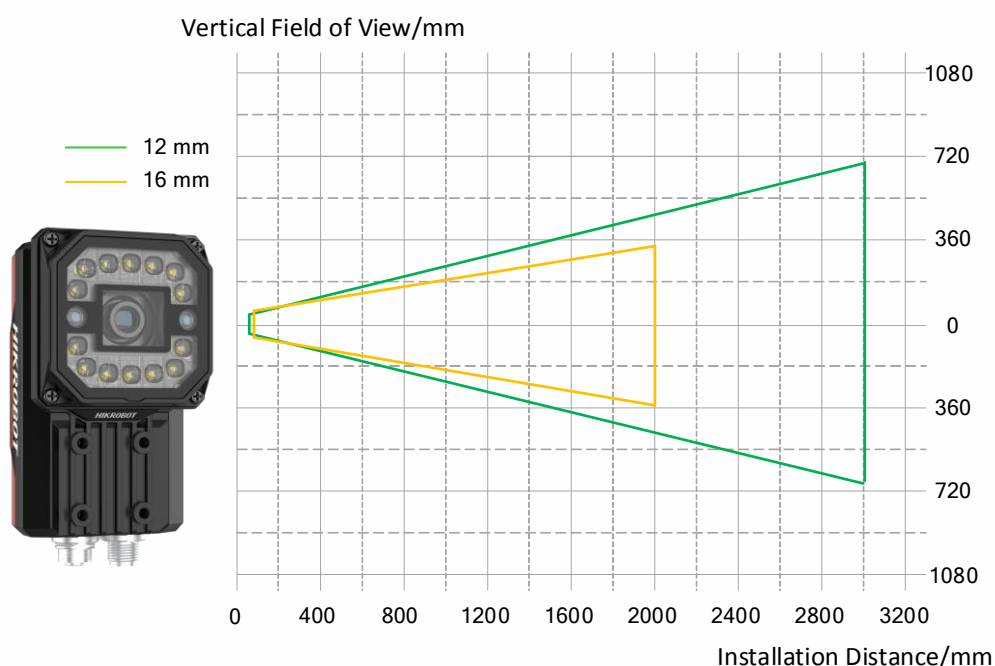
## Specification

Model	MV-SC7050PM-12S-WBN	MV-SC7050PM-16S-WBN
<b>Tool</b>		
<b>Vision tool</b>	<ul style="list-style-type: none"> <li>● Count: Pattern count, spot count, edge count</li> <li>● Defect detection: Exception detection</li> <li>● Existence: Pattern existence, spot existence, edge existence, circle existence, line existence</li> <li>● Location: Match location, match calibration</li> <li>● Logic tool: If module, condition judge, logic judge, combination judge, string comparison, calculator</li> <li>● Measurement: L2L angle, diameter measurement, brightness analysis, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement</li> <li>● Recognition: OCR, code recognition, DL classification, DL object detection</li> </ul>	
<b>Solution capacity</b>	Supports solution importing and exporting, up to 32 solutions and 40 modules can be stored.	
<b>Communication protocol</b>	RS-232, TCP, UDP, FTP, Profinet, ModBus, EtherNet/IP	
<b>Camera</b>		
<b>Sensor type</b>	CMOS, global shutter	
<b>Pixel size</b>	3.2 μm × 3.2 μm	
<b>Sensor size</b>	1/1.7"	
<b>Resolution</b>	2368 × 1760	
<b>Max. frame rate</b>	40 fps	
<b>Gain</b>	0 dB to 15 dB	
<b>Exposure time</b>	16 μs to 1 sec	
<b>Pixel format</b>	Mono 8	
<b>Mono/color</b>	Mono	
<b>Platform</b>		
<b>Memory</b>	8 GB	
<b>Storage</b>	32 GB	
<b>Electrical feature</b>		
<b>Data interface</b>	Gigabit Ethernet interface	
<b>Digital I/O</b>	12-pin M12 connector provides power and I/O, including opto-isolated input (Line 0/1/2) × 3, opto-isolated output (Line 3/4/5) × 3, and RS-232 × 1	
<b>Power supply</b>	24 VDC	
<b>Power consumption</b>	Approx. 7.5 W@24 VDC (light source disabled) Approx. 46 W@24 VDC (light source enabled)	

Mechanical	
Lens mount	M12-mount, mechanical autofocus supported.
Focal length	12 mm (0.5")   16 mm (0.6")
Lens cap	Transparent lens cap. Half polarization or full polarization lens cap is optional.
Light source	White light. Red, blue, or NIR light is optional.
Indicator	Power indicator (PWR), network indicator (LNK/ACT), and user-defined indicator (U1/U2).
Dimension	112.5 mm × 65.5 mm × 63.3 mm (4.4" × 2.6" × 2.5")
Weight	Approx. 450 g (1.0 lb.)
Ingress protection	IP67
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% to 95% RH, non-condensing
General	
Client software	SCMVS
Certification	CE, FCC, KC

## Detection Range

Lens focal length	Installation distance	Field of view	Single pixel accuracy
12 mm (0.5")	60 mm (2.4")	37.89 mm × 28.16 mm (1.5" × 1.1")	0.016 mm
	3000 mm (118.1")	1894.4 mm × 1408 mm (74.6" × 55.4")	0.8 mm
16 mm (0.6")	90 mm (3.5")	42.62 mm × 31.68 mm (1.7" × 1.2")	0.018 mm
	2000 mm (78.7")	947.2 mm × 704 mm (37.3" × 27.7")	0.4 mm



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