

# MV-SC3050M

## 5 MP 1/1.7" Vision Sensor



### Introduction

With built-in positioning and measurement algorithms, MV-SC3050M vision sensor can detect object's existence, quantity, location, etc. It can be monitored and operated via the SCMVS client. It can output results via RS-232 and Ethernet, and cooperate with other processes via IO. The vision sensor supports multiple result output methods and customized result text output.

### Key Features

- Adopts embedded hardware platform for high-speed image processing.
- Adopts built-in positioning and measurement algorithms to object's existence, quantity, location, etc.
- Multiple IO interfaces for input and output signals.
- Multiple indicators for displaying device status.
- Adopts light source to ensure uniform brightness in the illuminated area.
- Supports multiple communication protocols, including Serial Port, TCP, UDP, FTP, Profinet, Modbus, etc.

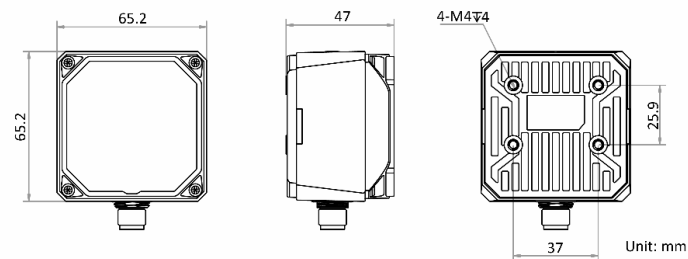
### Available Model

- 8 mm focal length: MV-SC3050M-08M-WBN
- 12.4 mm focal length: MV-SC3050M-12M-WBN
- 16 mm focal length: MV-SC3050M-16M-WBN

### Applicable Industry

Consumer electronics, food and medical industry, automobile, etc.

### Dimension



# Specification

Model	MV-SC3050M-08M-WBN	MV-SC3050M-12M-WBN	MV-SC3050M-16M-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, fixture</li> <li>● Logic tool: If module, condition judge, logic judge, combination judge, character comparison, calculator</li> <li>● Measurement: L2L angle, diameter measurement, brightness average value, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement</li> <li>● Recognition: OCR, code recognition</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>	Serial Port, 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 × 1670		
<b>Max. frame rate</b>	30 fps		
<b>Dynamic range</b>	71.4 dB		
<b>SNR</b>	41 dB		
<b>Gain</b>	0 dB to 18 dB		
<b>Exposure time</b>	16 μs to 1 sec		
<b>Pixel format</b>	Mono 8		
<b>Mono/color</b>	Mono		
<b>Electrical features</b>			
<b>Data interface</b>	Fast Ethernet		
<b>Digital I/O</b>	17-pin M12 connector provides power, Ethernet, digital I/O, and serial port: Input signal × 2 (Line 0/1), output signal × 3 (Line 5/6/7), bi-directional I/O × 3 (Line 2/3/4), and external button input × 1. Output signal can be set as NPN or PNP.		
<b>Power supply</b>	24 VDC		
<b>Max. power consumption</b>	Approx. 48 W@24 VDC		
<b>Mechanical</b>			
<b>Lens mount</b>	M12-mount, mechanical autofocus lens		
<b>Focal length</b>	8 mm (0.3")	12.4 mm (0.5")	16 mm (0.6")
<b>Lens cap</b>	Transparent lens cap. Polarization or infrared filter lens cap is optional.		
<b>Light source</b>	White light by default. Red/blue/near-infrared is optional.		
<b>Indicator</b>	Power indicator (PWR), network indicator (LNK), status indicator (STS), result indicator (OK/NG)		
<b>Dimension</b>	65.2 mm × 65.2 mm × 47 mm (2.6" × 2.6" × 1.9")		
<b>Weight</b>	Approx. 280 g (0.6 lb.)		
<b>Ingress protection</b>	IP67 (under proper installation of lens and wiring)		
<b>Temperature</b>	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)		

<b>Humidity</b>	20% to 95% RH, non-condensing
<b>General</b>	
<b>Client software</b>	SCMVS
<b>Certification</b>	CE, FCC, KC

## Detection Range

Lens focal length	Installation distance	Field of view	Single pixel accuracy
8 mm (0.3")	25 mm (1.0")	23.68 mm × 17.6 mm (0.9" × 0.7")	0.01 mm
	3000 mm (118.1")	2841.6 mm × 2112 mm (111.9" × 83.1")	1.2 mm
12.4 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

