

MV-SC3004C

0.4 MP 1/2.9" Vision Sensor



Introduction

With built-in positioning and measurement algorithms, MV-SC3004C 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 detect 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.

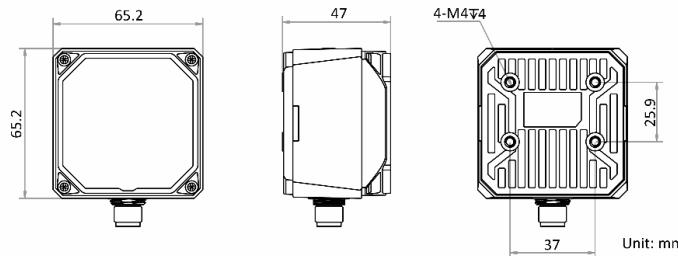
Available Model

- 6 mm focal length: MV-SC3004C-06M-WBN
- 12.4 mm focal length: MV-SC3004C-12M-WBN
- 14.8 mm focal length: MV-SC3004C-15M-WBN

Applicable Industry

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

Dimension



Specification

Model	MV-SC3004C-06M-WBN	MV-SC3004C-12M-WBN	MV-SC3004C-15M-WBN		
Tool					
Vision tool		<ul style="list-style-type: none"> Count: Pattern count, spot count, edge count Defect detection: Exception detection Existence: Pattern existence, spot existence, edge existence, circle existence, line existence Location: Match location, match calibration Logic tool: If module, condition judge, logic judge, combination judge, character comparison, calculator Measurement: Color size, L2L angle, diameter measurement, brightness average value, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement Recognition: OCR, color contrast, code recognition, color recognition 			
Solution capacity		Supports solution importing and exporting, up to 32 solutions and 40 modules can be stored.			
Communication protocol		Serial Port, TCP, UDP, FTP, Profinet, Modbus, Ethernet/IP			
Camera					
Sensor type	CMOS, global shutter				
Pixel size	6.9 μm \times 6.9 μm				
Sensor size	1/2.9"				
Resolution	704 \times 540				
Max. frame rate	100 fps				
Dynamic range	74 dB				
SNR	41 dB				
Gain	0 dB to 15 dB				
Exposure time	16 μs to 1 sec				
Pixel format	RGB 8, Mono 8				
Mono/color	Color				
Electrical features					
Data interface	Fast Ethernet				
Digital I/O	17-pin M12 connector provides power, Ethernet, digital I/O, and serial port: Input signal \times 2 (Line 0/1), output signal \times 3 (Line 5/6/7), bi-directional I/O \times 3 (Line 2/3/4), and external button input \times 1. Output signal can be set as NPN or PNP.				
Power supply	24 VDC				
Max. power consumption	Approx. 48 W@24 VDC				
Mechanical					
Lens mount	M12-mount, mechanical autofocus lens				
Focal length	6 mm (0.2")	12.4 mm (0.5")	14.8 mm (0.6")		
Lens cap	Transparent lens cap. Polarization or infrared filter lens cap is optional.				
Light source	White light by default. Red or blue is optional.				
Indicator	Power indicator (PWR), network indicator (LNK), status indicator (STS), result indicator (OK/NG)				
Dimension	65.2 mm \times 65.2 mm \times 47 mm (2.6" \times 2.6" \times 1.9")				
Weight	Approx. 280 g (0.6 lb.)				
Ingress protection	IP67 (under proper installation of lens and wiring)				

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
6 mm (0.2")	5 mm (0.2")	4.05 mm × 3.11 mm (0.2" × 0.1")	0.006 mm
	2000 mm (78.7")	1619.20 mm × 1242 mm (63.7" × 48.9")	2.300 mm
12.4 mm (0.5")	70 mm (2.8")	27.42 mm × 21.03 mm (1.1" × 0.8")	0.039 mm
	2000 mm (78.7")	783.48 mm × 600.97 mm (30.8" × 23.7")	1.113 mm
14.8 mm (0.6")	80 mm (3.1")	26.26 mm × 20.14 mm (1.0" × 0.8")	0.037 mm
	2000 mm (78.7")	656.43 mm × 503.51 mm (25.8" × 19.8")	0.932 mm

