MV-SC5016C

1.6 MP Smart Camera

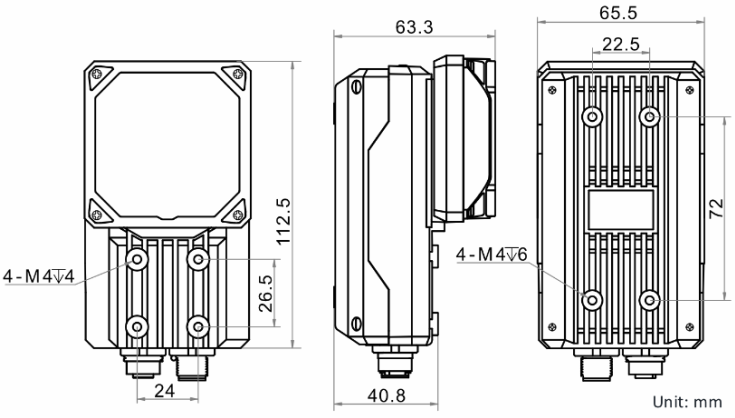
Introduction

MV-SC5016C smart camera is developed based on high-performance embedded platform. It integrates vision algorithms, logic controls, and vision detection functions. It can be easily configured and operated via the SCMVS client software, and it uses RS-232 and Ethernet to output vision tool results and customized results.

Available Model

- 12 mm focal length: MV-SC5016C-12S-WBN
- 16 mm focal length: MV-SC5016C-16S-WBN

Dimension



Key Feature

- 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-SC5016C-12S-WBN	MV-SC5016C-16S-WBN
Tool		
Vision tool	● 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 analysis, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement ● Recognition: Color recognition, color contrast, OCR, code recognition	
Solution capacity	Supports solution importing and exporting, up to 32 solutions and 40 modules can be stored.	
Communication protocol	RS-232, TCP, UDP, FTP, Profinet, ModBus, EtherNet/IP	
Camera		
Sensor type	CMOS, global shutter	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	1/2.9"	
Resolution	1408 × 1024	
Max. frame rate	60 fps	
Gain	0 dB to 15 dB	
Exposure time	16 μs to 1 sec	
Pixel format	Mono 8, RGB 8	
Mono/color	Color	
Platform		
Memory	8 GB	
Storage	32 GB	
Electrical feature		
Data interface	Gigabit Ethernet interface	
Digital I/O	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	
Power supply	24 VDC	
Power consumption	Approx. 8.5 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 or blue 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")	24.29 mm × 17.66 mm (1.0" × 0.7")	0.017 mm
	3000 mm (118.1")	1214.4 mm × 883.2 mm (47.8" × 34.8")	0.863 mm
16 mm (0.6")	90 mm (3.5")	27.32 mm × 19.87 mm (1.1" × 0.8")	0.019 mm
	2000 mm (78.7")	607.2 mm × 441.6 mm (23.9" × 17.4")	0.431 mm