MV-SC7016C

1.6 MP Smart Camera

Introduction

With built-in vision tools of deep learning, MV-SC7016C smart camera can achieve character and object recognition, object sorting, and other functions. With mechanical autofocus lens, the smart camera can meet different scenario demands. It can be monitored and operated via the web based interface, and it supports multiple result output methods, and customized result text output.

Key Feature

- Built-in vision tools of deep learning to achieve character and object recognition, object sorting, etc.
- Supports semi-automatic focus to get clearer images.
- Adopts high speed and large capacity memory medium for saving images.
- Supports multiple communication protocols, including TCP, UDP, Serial, FTP, Modbus, etc.
- Supports indicators displaying device status.

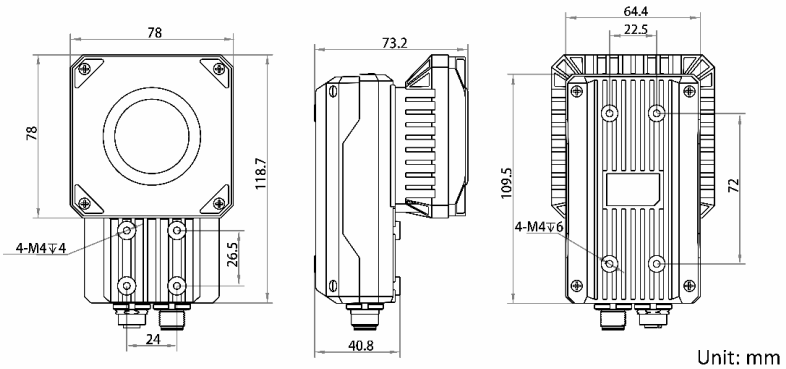
Available Model

- 6 mm focal length smart camera: MV-SC7016C-06S-WBN
- 12 mm focal length smart camera: MV-SC7016C-12S-WBN
- 15 mm focal length smart camera: MV-SC7016C-15S-WBN

Applicable Industry

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

Dimension



Unit: mm

Specification

Model	MV-SC7016C-06S-WBN	MV-SC7016C-12S-WBN	MV-SC7016C-15S-WBN
Tool			
Vision tool	Feature matching, fixture, blob, color conversion, deep learning character recognition, deep learning character location, deep learning classification, deep learning object detection, etc.		
Solution capacity	Supports solution importing and exporting, up to 32 solutions and 40 modules can be stored.		
Communication protocol	TCP, UDP, serial port, IO, Modbus, PROFINET, Ethernet/IP, and FTP.		
Camera			
Sensor type	CMOS, global shutter		
Pixel size	3.45 μm × 3.45 μm		
Sensor size	1/2.9"		
Resolution	1440 × 1080		
Max. frame rate	60 fps		
Dynamic range	71.4 dB		
SNR	41 dB		
Gain	0 dB to 15 dB		
Exposure time	16 μs to 1 sec		
Pixel format	Mono 8, RGB		
Mono/color	Color		
Platform			
Memory	4 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	12 VDC to 24 VDC		
Power consumption	Approx. 7.5 W@24 VDC (light source is disabled) Approx. 18 W@24 VDC (light source is enabled)		
Mechanical			
Lens mount	M12-mount, semi-automatic focus supported		
Focal length	6 mm (0.2")	12 mm (0.5")	15 mm (0.6")
Lens cap	Transparent lens cap. 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	118.7 mm × 78 mm × 73.2 mm (4.7" × 3.1" × 2.9")		
Weight	Approx. 520 g (1.1 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% to 95% RH, non-condensing		
General			
Client software	Via web based interface		
Certification	CE, FCC, KC		

Detection Range

Lens focal length	Installation distance	Field of view	Single pixel accuracy
6 mm (0.2")	20 mm (0.8")	16.56 mm × 12.42 mm (0.7" × 0.5")	0.0115 mm
	300 mm (11.8")	248.4 mm × 186.3 mm (9.8" × 7.3")	0.1725 mm
12 mm (0.5")	80 mm (3.1")	33.12 mm × 24.84 mm (1.3" × 1.0")	0.023 mm
	600 mm (23.6")	248 mm × 186.3 mm (9.8" × 7.3")	0.1722 mm
15 mm (0.6")	100 mm (3.9")	33.12 mm × 24.84 mm (1.3" × 1.0")	0.023 mm
	800 mm (31.5")	264.96 mm × 198.72 mm (10.4" × 7.8")	0.184 mm