MV-SC2016PC

1.6 MP Vision Sensor

Introduction

With built-in position and measurement algorithm, MV-SC2016PC vision sensor can detect object's presence, position, dimension, etc. It can be monitored and operated via web based interface. The vision sensor can output detection results via RS-232, Ethernet, etc., and cooperate with other devices via IO. It supports multiple result output methods and customized result text output.

Key Feature

- Adopts embedded hardware platform for high-speed image processing.
- Adopts built-in position and measurement algorithm to detect object's presence, position, dimension, etc.
- Multiple IO interfaces for input and output signals.
- Multiple indicators for displaying device status.
- Adopts light cup to ensure uniform brightness in the illuminated area.
- Supports multiple communication protocols, including TCP, UDP, Serial, IO, Modbus, PROFINET, Ethernet/IP, FTP, etc.

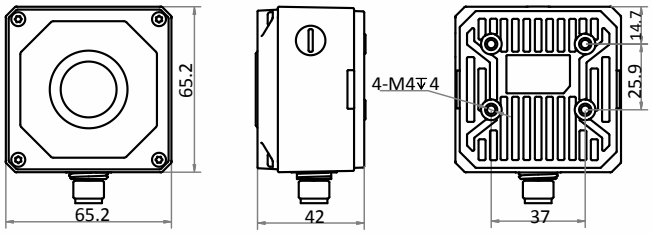
Available Model

- 6 mm focal length vision sensor: MV-SC2016PC-06S-WBN
- 12.4 mm focal length vision sensor: MV-SC2016PC-12S-WBN
- 14.8 mm focal length vision sensor: MV-SC2016PC-15S-WBN

Applicable Industry

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

Dimension



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Specification

Model	MV-SC2016PC-06S-WBN	MV-SC2016PC-12S-WBN	MV-SC2016PC-15S-WBN
Tool			
Vision tool	Feature matching, fixture, find line, find circle, measure brightness, blob, detect distance, measure line to line, measure point and line, N point calibration, coordinate conversion, color extraction, color measurement, color transformation, color distinguish, etc.		
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 TCP, 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		
Dynamic range	71.4 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		
Platform			
Memory	2 GB		
Storage	4 GB		
Electrical feature			
Data interface	17-pin M12 connector provides power, Ethernet, digital IO, and serial port		
Ethernet	Fast Ethernet		
Digital I/O	Input signal × 2 (Line 0/1), output signal × 3 (Line 5/6/7), bi-directional I/O × 3 (Line 2/3/4), and button input × 1. Output signal can be set as NPN or PNP		
Power supply	12 VDC to 24 VDC		
Power consumption	8.6 W@12 VDC		
Mechanical			
Lens mount	M12-mount, manual focus supported		
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	LED × 8: white (by default)/red/blue/NIR, LED × 48: white/red/blue		
Indicator	Power indicator (PWR), network indicator (LNK), status indicator (STS), and result indicator (OK/NG)		
Dimension	65.2 mm x 65.2 mm x 42 mm (2.6" x 2.6" x 1.7")		
Weight	Approx. 240 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	Via web based interface, SmartView		

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")	0.023 mm
	300 mm (11.8")	248.4 mm × 186.3 mm (9.8" × 7.3")	0.345 mm
12.4 mm (0.5")	80 mm (3.1")	33.12 mm × 24.84 mm (1.3" × 1.0")	0.046 mm
	600 mm (23.6")	248 mm × 186.3 mm (9.8" × 7.3")	0.345 mm
14.8 mm (0.6")	100 mm (3.9")	33.12 mm × 24.84 mm (1.3" × 1.0")	0.046 mm
	800 mm (31.5")	264.96 mm × 198.72 mm (10.4" × 7.8")	0.368 mm