MV-SC2016PM

1.6 MP Vision Sensor

Introduction

With built-in position and measurement algorithm, MV-SC2016PM 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.

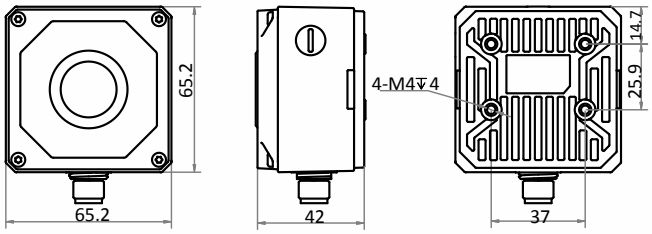
Available Model

- 6 mm focal length vision sensor: MV-SC2016PM-06S-WBN
- 12.4 mm focal length vision sensor: MV-SC2016PM-12S-WBN
- 14.8 mm focal length vision sensor: MV-SC2016PM-15S-WBN

Applicable Industry

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

Dimension



Specification

Model	MV-SC2016PM-06S-WBN	MV-SC2016PM-12S-WBN	MV-SC2016PM-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, 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	Mono 8		
Mono/color	Mono		
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