

# MV-SC3016C

## 1.6 MP 1/2.9" Vision Sensor



### Introduction

With built-in positioning and measurement algorithms, MV-SC3016C 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.

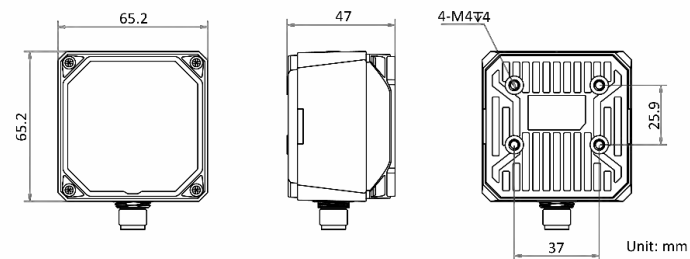
### Available Model

- 6 mm focal length: MV-SC3016C-06M-WBN
- 12.4 mm focal length: MV-SC3016C-12M-WBN
- 14.8 mm focal length: MV-SC3016C-15M-WBN

### Applicable Industry

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

### Dimension



## Specification

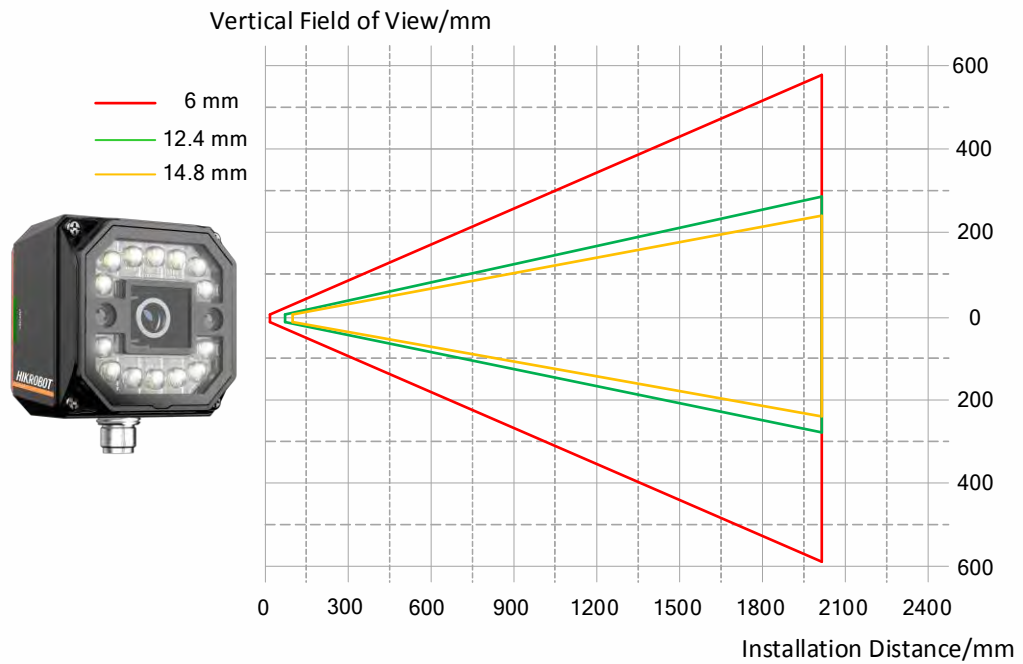
Model	MV-SC3016C-06M-WBN	MV-SC3016C-12M-WBN	MV-SC3016C-15M-WBN
<b>Tool</b>			
<b>Vision tool</b>	<ul style="list-style-type: none"> <li>● Count: Pattern count, spot count, edge count</li> <li>● Defect detection: Exception detection</li> <li>● Existence: Pattern existence, spot existence, edge existence, circle existence, line existence</li> <li>● Location: Match location, match calibration</li> <li>● Logic tool: If module, condition judge, logic judge, combination judge, character comparison, calculator</li> <li>● Measurement: Color size, L2L angle, diameter measurement, brightness average value, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement</li> <li>● Recognition: OCR, color contrast, code recognition, color recognition</li> </ul>		
<b>Solution capacity</b>	Supports solution importing and exporting, up to 32 solutions and 40 modules can be stored.		
<b>Communication protocol</b>	Serial Port, TCP, UDP, FTP, Profinet, Modbus, Ethernet/IP		
<b>Camera</b>			
<b>Sensor type</b>	CMOS, global shutter		
<b>Pixel size</b>	3.45 μm × 3.45 μm		
<b>Sensor size</b>	1/2.9"		
<b>Resolution</b>	1408 × 1024		
<b>Max. frame rate</b>	60 fps		
<b>Dynamic range</b>	71.4 dB		
<b>SNR</b>	41 dB		
<b>Gain</b>	0 dB to 15 dB		
<b>Exposure time</b>	16 μs to 1 sec		
<b>Pixel format</b>	RGB 8, Mono 8		
<b>Mono/color</b>	Color		
<b>Electrical features</b>			
<b>Data interface</b>	Fast Ethernet		
<b>Digital I/O</b>	17-pin M12 connector provides power, Ethernet, digital I/O, and serial port: Input signal × 2 (Line 0/1), output signal × 3 (Line 5/6/7), bi-directional I/O × 3 (Line 2/3/4), and external button input × 1. Output signal can be set as NPN or PNP.		
<b>Power supply</b>	24 VDC		
<b>Max. power consumption</b>	Approx. 48 W@24 VDC		
<b>Mechanical</b>			
<b>Lens mount</b>	M12-mount, mechanical autofocus lens		
<b>Focal length</b>	6 mm (0.2")	12.4 mm (0.5")	14.8 mm (0.6")
<b>Lens cap</b>	Transparent lens cap. Polarization or infrared filter lens cap is optional.		
<b>Light source</b>	White light by default. Red or blue is optional.		
<b>Indicator</b>	Power indicator (PWR), network indicator (LNK), status indicator (STS), result indicator (OK/NG)		
<b>Dimension</b>	65.2 mm × 65.2 mm × 47 mm (2.6" × 2.6" × 1.9")		
<b>Weight</b>	Approx. 280 g (0.6 lb.)		
<b>Ingress protection</b>	IP67 (under proper installation of lens and wiring)		
<b>Temperature</b>	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)		
<b>Humidity</b>	20% to 95% RH, non-condensing		

**General**

<b>Client software</b>	SCMVS
<b>Certification</b>	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 × 2.94 mm (0.2" × 0.1")	0.003 mm
	2000 mm (78.7")	1619.20 mm × 1177.60 mm (63.7" × 46.4")	1.150 mm
12.4 mm (0.5")	70 mm (2.8")	27.42 mm × 19.94 mm (1.1" × 0.8")	0.019 mm
	2000 mm (78.7")	783.48 mm × 569.81 mm (30.8" × 22.4")	0.556 mm
14.8 mm (0.6")	80 mm (3.1")	26.26 mm × 19.10 mm (1.0" × 0.8")	0.019 mm
	2000 mm (78.7")	656.43 mm × 477.41 mm (25.8" × 18.8")	0.466 mm



**HIKROBOT**

Hangzhou Hikrobot Technology Co., Ltd.  
No.399 Danfeng Road, Binjiang District, Hangzhou 310051, China.  
en.hikrobotics.com

**MaxxVision®**

Sigmaringer Str. 121  
70567 Stuttgart

Tel.: 0711 997 996 3

[www.maxxvision.com](http://www.maxxvision.com)

Copyright Hikrobot

Hangzhou Hikrobot Technology Co., Ltd. All Rights Reserved. Hangzhou Hikrobot Technology does not tolerate any infringement. Any organization or individual may not imitate or reproduce in whole or in part of the content. The data herein is based on Hikrobot's internal evaluation. Actual data may vary depending on specific configuration and operating condition. The information herein is subject to change without notice. All the content has been checked conscientiously. Nevertheless, Hikrobot shall not be liable to damages resulting from errors, inconsistencies or omissions.