HIKROBOT®

MV-SC2004EM-06S-WBN-Mini

0.4 MP 1/2.9" Vision Sensor

CE   KC

Introduction

With built-in positioning and measurement algorithms, MV-SC2004EM-06S-WBN-Mini vision sensor can detect object's existence, count patterns and spots, 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, count patterns and spots, 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, Ethernet/IP, etc.
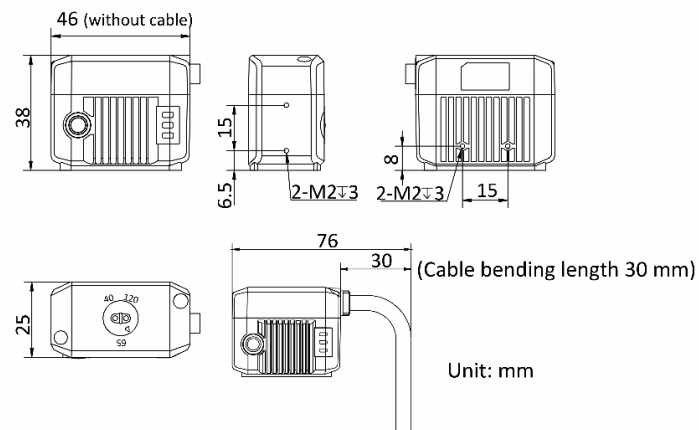
Available Model

MV-SC2004EM-06S-WBN-Mini

Applicable Industry

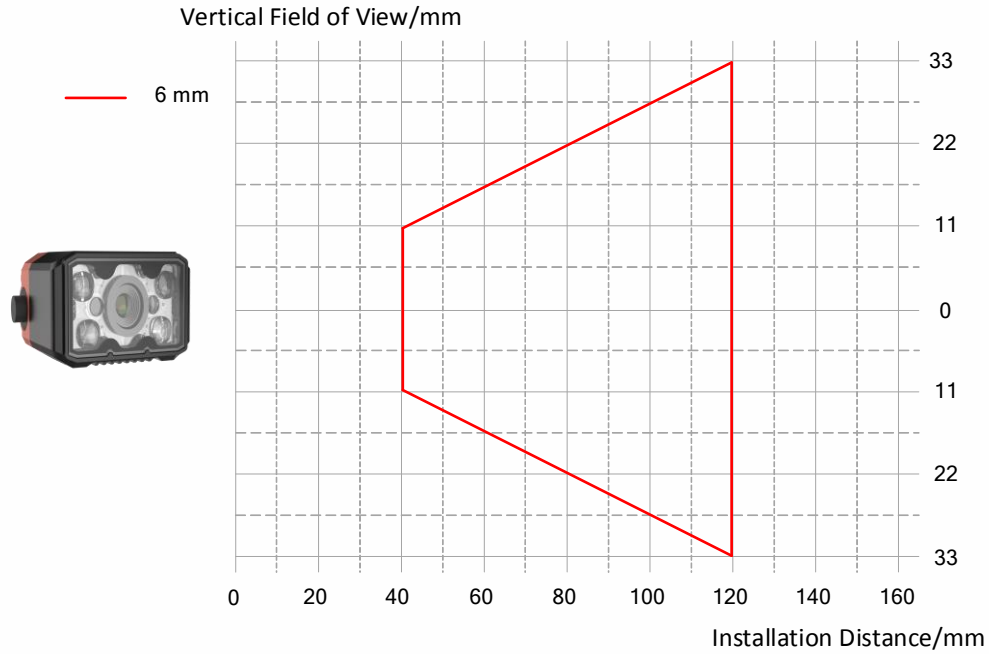Consumer electronics, food and medical industry, automobile, etc.

Dimension

46 (without cable)
38
15
6.5
2-M2↧3   2-M2↧3   8   15
76
30   (Cable bending length 30 mm)
25
Unit: mm

Specification

Model	MV-SC2004EM-06S-WBN-Mini
Tool	
Vision tool	● Count: Pattern count, edge count, and spot count ● Existence: Circle existence, line existence, spot existence, edge existence, and pattern existence ● Location: Fixture ● Logic tool: Condition judge, character comparison, logic judge, and calculator ● Measurement: L2L angle, diameter measurement, brightness average value, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, and edge width measurement ● Recognition: OCR, and classification registration
Solution capacity	Supports solution importing and exporting, up to 8 solutions and 40 modules can be stored.
Communication protocol	Serial Port, TCP, UDP, FTP, Profinet, Modbus, Ethernet/IP
Camera	
Sensor type	CMOS, global shutter
Pixel size	6.9 µm × 6.9 µm
Sensor size	1/2.9"
Resolution	704 × 540
Max. frame rate	60 fps
Dynamic range	74 dB
SNR	41 dB
Gain	0 dB to 15 dB
Exposure time	16 µs to 1 sec
Pixel format	Mono 8
Mono/color	Mono
Electrical features	
Data interface	Fast Ethernet
Digital I/O	17-pin M12 connector provides power, Ethernet, serial port, and digital I/O, including configurable I/O × 4 (Line 0/1/2/3). Device trigger via pressing button supported. Output signals support NPN only.
Power supply	12 VDC to 24 VDC
Max. power consumption	Approx. 7.5 W@12 VDC
Mechanical	
Lens mount	M10-mount, adjusting focus manually supported
Focal length	6.72 mm (0.3")
Lens cap	Transparent lens cap.
Light source	White LED lamp × 4
Indicator	Power indicator (PWR), network indicator (LNK), and status indicator (STS).
Dimension	46 mm × 38 mm × 25 mm (1.8" × 1.5" × 1.0")
Weight	Approx. 160 g (0.35 lb.)
Ingress protection	IP65 (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	SCMVS
Certification	CE, KC

Detection Range

Lens focal length	Installation distance	Field of view	Single pixel accuracy
6 mm (0.2")	40 mm (1.6")	29 mm × 22 mm (1.1" × 0.9")	0.041 mm
	120 mm (4.7")	87 mm × 66 mm (3.4" × 2.6")	0.123 mm

Vertical Field of View/mm

—— 6 mm

Installation Distance/mm