

MV-SC2004EM-06S-WBN-Mini

0.4 MP Mono Vision Sensor

With built-in positioning and measurement algorithms, MV-SC2004EM-06S-WBN-Mini vision sensor can realize counting, existence, measurement detection. 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 I/O. 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 for counting, existence, measurement detection.
- 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 RS-232, TCP, UDP, FTP, Modbus, PROFINET, EtherNet/IP and other communication modes.

Available Model

- MV-SC2004EM-06S-WBN-Mini

Typical Application

- Consumer electronics
- Food and pharmaceutical
- Automotive

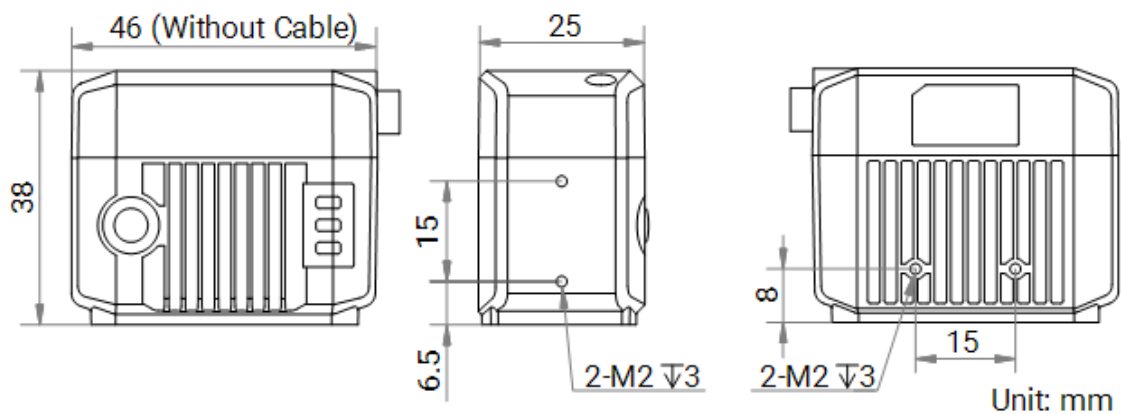


Specification

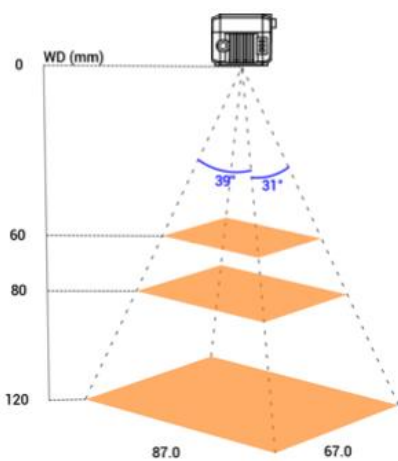
Model	MV-SC2004EM-06S-WBN-Mini
Tool	
Vision tool	● Measurement: P2P measurement, P2L measurement, contrast measurement, greyscale size, edge width measurement, width measurement, brightness average value, L2L angle, diameter measurement, and line angle ● Existence: Anomaly judge, spot existence, edge existence, contour existence, pattern existence, circle existence, and line existence ● Count: Spot count, edge count, contour count, and pattern count ● Recognition: Category recognition, classification registration, and OCR ● Logic: Calculator, logic judge, condition judge, combination judge, format output, If module, and character comparison ● Location: Fixture
Solution capacity	Supports solution importing and exporting, up to 8 solutions and 40 modules can be stored.
Communication protocol	RS-232, TCP, UDP, FTP, PROFINET, Modbus, EtherNet/IP, MELSEC/SLMP, FINS, Keyence KV
Camera	
Sensor type	CMOS, global shutter
Pixel size	6.9 μm $\times$ 6.9 μm
Sensor size	1/2.9"
Resolution	704 $\times$ 540
Max. frame rate	60 fps
Gain	0 dB to 15 dB
Exposure time	16 μs to 1 sec
Pixel format	Mono 8
Mono/color	Mono
Electrical feature	
Data interface	Fast Ethernet (100 Mbit/s)
Digital I/O	17-pin M12 connector provides power, Ethernet, serial port, and digital I/O, including non-isolated input $\times$ 1 (Line 2), non-isolated output $\times$ 1 (Line 3), configurable non-isolated I/O $\times$ 2 (Line 0/1), RS-232 $\times$ 1, and external button input $\times$ 1 (BUTTON) Output signals support NPN only.
Power supply	12 VDC to 24 VDC
Power consumption	Avg. 4 W @ 24 VDC Max. 11 W @ 24 VDC
Mechanical	
Lens mount	M10-mount, adjusting focus manually supported
Focal length	6.72 mm
Lens cap	Transparent lens cap
Light source	White LED lamp $\times$ 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 (0.4 lb.)
Ingress protection	IP65
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% RH to 95% RH (no condensation)
Vibration resistance	Meets standard IEC 60068-2-6:2007. Device only: 10 Hz to 55 Hz, 1.5 mm peak-to-peak amplitude, 2 hours per axis (X, Y, Z)
Shock resistance	Meets standard IEC 60068-2-27:2008. Device only: 30 g / 11 ms, half-sine wave, 500 shocks per axis (6 directions)
General	
Client software	SCMVS
Certification	CE, KC

Dimension



Detection Range

MV-SC2004EM-06S-WBN-Mini (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		Single Pixel Accuracy	Diagram of Field of View
		H	V		
6.72	40	29	22	0.04	
	60	43	33	0.06	
	80	58	44	0.08	
	100	72	55	0.10	
	120	87	67	0.12	