MV-SC2005AC

0.5 MP Color AGV Navigation Sensor

Introduction

With built-in ribbon localization algorithm, MV-SC2005AC navigation sensor can effectively localize ribbon. At the same time, the device has built-in code reading algorithm, and can read 2-dimensional code tapes and array codes, and its max. reading speed reaches 83 codes/sec. It has good robustness and can effectively read codes with spots, defects and low contrast ratio.

Applicable Industry

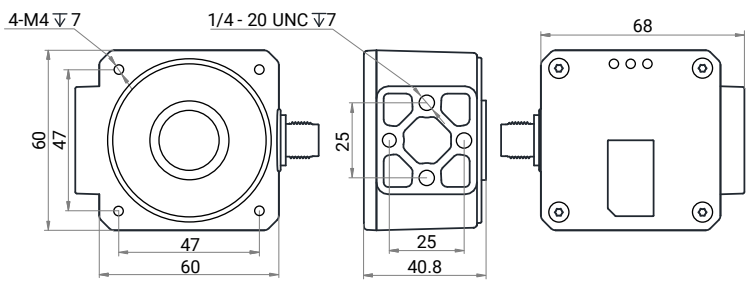
AGV navigation

Available Model

- 2.5 mm focal length: MV-SC2005AC-02WBN
- 3.4 mm focal length: MV-SC2005AC-03WBN

Dimension

MV-SC2005AC-02WBN

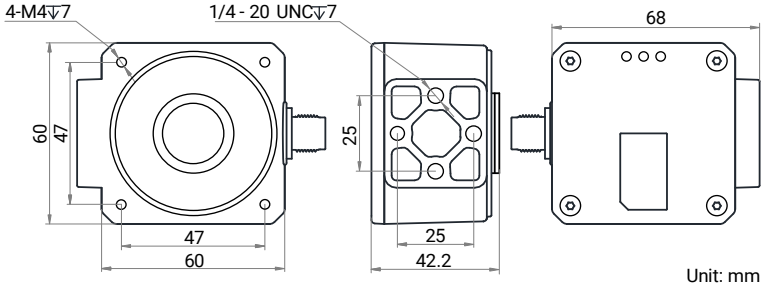


Unit: mm

Key Feature

- Built-in ribbon localization algorithm to effectively localize ribbon.
- Built-in code reading algorithm to read 2-dimensional code tapes and array codes.
- Provides good robustness to read codes with spots, defects and low contrast ratio.
- Adopts CMOS sensor to provide high-quality images.
- Adopts multiple indicators for displaying status and debugging.
- Adopts M12 lens and supports large field of view.
- Better optical design to provide uniform illumination and applicable to strong reflection.

MV-SC2005AC-03WBN



Unit: mm

Specification

Model	MV-SC2005AC-02WBN	MV-SC2005AC-03WBN
Performance		
Symbologies	2-dimensional codes: DM-12, DM-14	
Max. frame rate	96 fps	
Max. reading speed	83 codes/sec	
Max. running speed	3 m/sec (it is the AGV's max. running speed)	
Sensor type	CMOS, global shutter	
Pixel size	4.8 μm × 4.8 μm	
Sensor size	1/3.6"	
Resolution	800 × 600	
Exposure time	20 μs to 9000 μs	
Gain	1 dB to 330 dB	
Mono/color	Color	
Pixel format	RGB	
Communication protocol	SmartSDK, UDP, Serial, Modbus, Profinet, EthernetIP	
Electrical feature		
Data interface	Fast Ethernet (100 Mbit/sec), RS-485	
Digital I/O	12-pin M12 connector provides power supply and RS-485 × 1	
Power supply	24 VDC	
Max. power consumption	18 W @ 24 VDC (self light source enabled) 3 W @ 24 VDC (self light source disabled)	
Mechanical		
Focal length	2.5 mm	3.4 mm
Working distance	100 mm ± 5 mm	
Displacement accuracy	0.1 mm	
Angle accuracy	0.1°	
Field of view	93.8°	86.9°
Field of view (range)	170 mm × 130 mm	114 mm × 85 mm
Dimension	68 mm × 60 mm × 40.8 mm (2.7" × 2.4" × 1.6")	68 mm × 60 mm × 42.2 mm (2.7" × 2.4" × 1.7")
Weight	Approx. 200 g (0.4 lb.)	
Ingress protection	IP65 (with proper installation of waterproof lens cap)	
Temperature	Working temperature: –10 °C to 50 °C (14 °F to 122 °F) Storage temperature: –30 °C to 70 °C (–22 °F to 158 °F)	
Humidity	10% RH to 90% RH (no condensation)	
General		
Client software	IDMVS	
Certification	CE, RoHS	

Field of view (range): It is the field of view under 100 mm ± 5 mm working distance. If the working distance changes, the field of view will vary too.)

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