MV-IDH7000P

Wired Handheld Code Reader



Introduction

MV-IDH7000P wired handheld code reader decodes different types of 1D and 2D codes rapidly. With the built-in intelligent code reading algorithm, it can easily decoding codes with spots, defects and low contrast ratio, and entry level DPM codes. It adopts illumination system to provide direct lighting and diffused reflection lighting.

Applicable Industry

PCB, new energy, consumer electronics, semiconductor, automobile parts, etc.

Available Model

- MV-IDH7000P/10SR/07RN/L
- MV-IDH7000P/10SR/07RN/U
- MV-IDH7000P/10SR/07RN/LP
- MV-IDH7000P/10NR/07RN/L
- MV-IDH7000P/10NR/07RN/U
- MV-IDH7000P/10NR/07RN/LP
- MV-IDH7000P/10ER/07RN/U
- MV-IDH7000P/10HHD/07RN/L
- MV-IDH7000P/10HHD/07RN/U

Key Feature

- Built-in code reading algorithm for decoding different types of 1D and 2D codes.
- Provides good robustness to read codes with spots, defects and low contrast ratio.
- Supports continuous code reading, batch code reading for improving code reading efficiency.
- Supports communication protocols, including TCP, Serial, FTP, Profinet, Ethernet/IP, MELSEC/SLMP, Fins, USB HID, and USB CDC.
- Adopts illumination system to provide direct lighting and diffused reflection lighting.
- Easy to replace components.
- IP65 and drop height of 1.8 m.

Specification

HIKROBOT

Model	MV-IDH7000P/10NR/07RN/L (U/LP)	MV-IDH7000P/10SR/07RN/L (U/LP)
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix	
Min. accuracy	3 mil	
Max. frame rate	50 fps	
Sensor type	CMOS, global shutter	
Pixel size	3 μm × 3 μm	
Sensor size	1/4"	
Resolution	1280 × 800	
Depth of field*	Code 39 (3 mil): 15 mm to 60 mm Code 39 (5 mil): 5 mm to 80 mm Data Matrix (5 mil): 10 mm to 70 mm Data Matrix (10 mil): 0 mm to 110 mm QR Code (5 mil): 10 mm to 70 mm	Code 39 (5 mil): 30 mm to 200 mm Code 128 (3 mil): 55 mm to 110 mm Code 128 (20 mil): 56 mm to 660 mm Data Matrix (10 mil): 20 mm to 220 mm QR Code (10 mil): 20 mm to 220 mm QR Code (20 mil): 10 mm to 450 mm
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Communication protocol	Network interface: SmartSDK, TCP, FTP, HTTP, Profinet, MELSEC/SLMP, Ethernet/IP, Modbus, UDP, Fins, Serial USB interface: SmartSDK, USB (HID/CDC)	
Electrical feature		
Data interface	Network interface: Fast Ethernet (100 Mbit/s), RS-232, DC terminal USB interface: USB 2.0, DC terminal	
Power supply	Network interface: 12 VDC to 24 VDC USB interface: 5 VDC (USB 2.0), 12 VDC to 24 VDC (DC terminal)	
Max. power consumption	Network interface: 6 W @ 24 VDC USB interface: 4.6 W @ 5 VDC (USB 2.0), 6 W @ 24 VDC (DC terminal)	
Mechanical		
Focal length	6.7 mm	
Lens mount	M5.8-mount	
Ambient illumination	0 lux to 100000 lux	
Light source	Direct lighting: white LED Diffused reflection lighting: red LED	
Aiming system	Cross laser aiming	
Dimension	73.4 mm × 104 mm × 229.5 mm (2.9" × 4.1" × 9.0")	
Weight	Approx. 460 g (1.0 lb.)	
Ingress protection	IP65	
Temperature	Working temperature: –20 °C to 50 °C (–4 °F to 122 °F) Storage temperature: –30 °C to 60 °C (–22 °F to 140 °F)	
Humidity	20% RH to 95% RH (no condensation)	
Drop height	1.8 m	
General		
Client software	IDMVS	
Certification	CE, KC	

**Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.*

Specification

HIKROBOT

Model	MV-IDH7000P/10ER/07RN/U
Performance	
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix
Min. accuracy	5 mil (1D codes) 10 mil (2D codes)
Max. frame rate	50 fps
Sensor type	CMOS, global shutter
Pixel size	3 μm × 3 μm
Sensor size	1/4"
Resolution	1280 × 800
Depth of field*	Code 39 (20 mil): 80 mm to 1000 mm Code 39 (100 mil): ** to 3000 mm Code 128 (5 mil): 180 mm to 270 mm Code 128 (15 mil): 100 mm to 800 mm Data Matrix (10 mil): 160 mm to 310 mm Data Matrix (160 mil): ** to 2700 mm
Field of view	Horizontal 31°, vertical 20°
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°
Symbol contrast	20%
Communication protocol	SmartSDK, USB (HID/CDC)
Electrical feature	
Data interface	USB 2.0, DC terminal
Power supply	5 VDC (USB 2.0), 12 VDC to 24 VDC (DC terminal)
Max. power consumption	4.6 W @ 5 VDC (USB 2.0), 6 W @ 24 VDC (DC terminal)
Mechanical	
Focal length	6.7 mm
Lens mount	M5.8-mount
Ambient illumination	0 lux to 100000 lux
Light source	Direct lighting: white LED Diffused reflection lighting: red LED
Aiming system	Cross laser aiming
Dimension	73.4 mm × 104 mm × 229.5 mm (2.9" × 4.1" × 9.0")
Weight	Approx. 460 g (1.0 lb.)
Ingress protection	IP65
Temperature	Working temperature: –20 °C to 50 °C (–4 °F to 122 °F) Storage temperature: –30 °C to 60 °C (–22 °F to 140 °F)
Humidity	20% RH to 95% RH (no condensation)
Drop height	1.8 m
General	
Client software	IDMVS
Certification	CE, KC

**Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.*

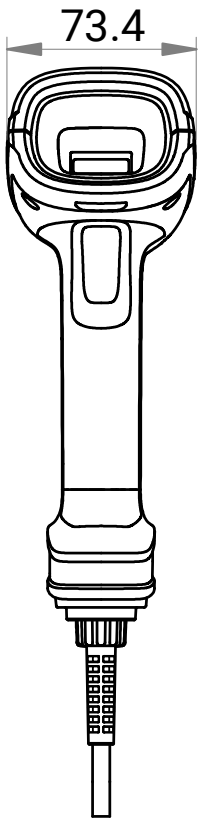
Specification

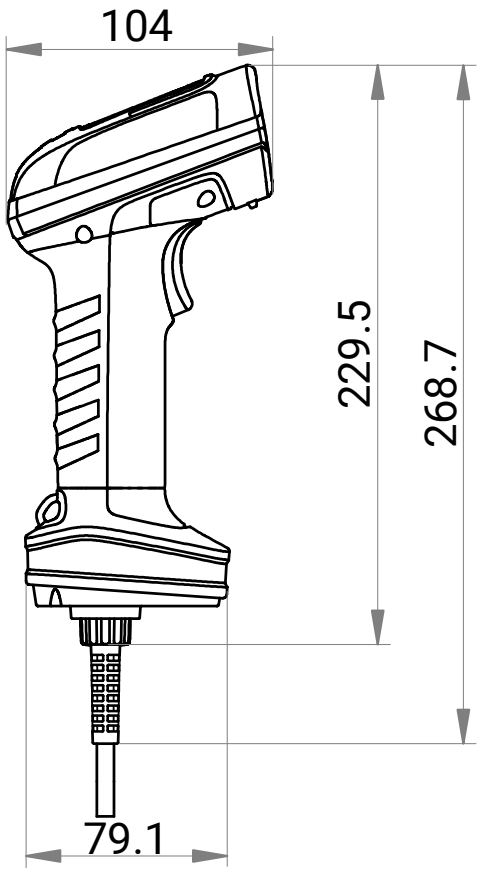
Model	MV-IDH7000P/10HHD/07RN/L	MV-IDH7000P/10HHD/07RN/U
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix	
Min. accuracy	0.8 mil (1D codes) 2 mil (2D codes)	
Max. frame rate	50 fps	
Sensor type	CMOS, global shutter	
Pixel size	3 μm × 3 μm	
Sensor size	1/4"	
Resolution	1280 × 800	
Depth of field*	Code 39 (5 mil): 0 mm to 29 mm Data Matrix (2 mil): 0 mm to 11 mm Data Matrix (5 mil): 0 mm to 20 mm QR Code (10 mil): 0 mm to 40 mm	
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Communication protocol	Network interface: SmartSDK, TCP, FTP, HTTP, Profinet, MELSEC/SLMP, Ethernet/IP, Modbus, UDP, Fins, Serial USB interface: SmartSDK, USB (HID/CDC)	
Electrical feature		
Data interface	Network interface: Fast Ethernet (100 Mbit/s), RS-232, DC terminal USB interface: USB 2.0, DC terminal	
Power supply	Network interface: 12 VDC to 24 VDC USB interface: 5 VDC (USB 2.0), 12 VDC to 24 VDC (DC terminal)	
Max. power consumption	Network interface: 6 W @ 24 VDC USB interface: 4.6 W @ 5 VDC (USB 2.0), 6 W @ 24 VDC (DC terminal)	
Mechanical		
Focal length	6.7 mm	
Lens mount	M5.8-mount	
Ambient illumination	0 lux to 100000 lux	
Light source	Direct lighting: white LED Diffused reflection lighting: red LED	
Aiming system	Cross laser aiming	
Dimension	73.4 mm × 104 mm × 229.5 mm (2.9" × 4.1" × 9.0")	
Weight	Approx. 460 g (1.0 lb.)	
Ingress protection	IP65	
Temperature	Working temperature: –20 °C to 50 °C (–4 °F to 122 °F) Storage temperature: –30 °C to 60 °C (–22 °F to 140 °F)	
Humidity	20% RH to 95% RH (no condensation)	
Drop height	1.8 m	
General		
Client software	IDMVS	
Certification	CE, KC	

**Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.*

Laser Information of IDH 7000P Series Product	
Laser safety class	Laser 2
Wavelength	650 nm
Beam divergence angle	14.5°
Pulse width	8 ms
Repetitive frequency	50 Hz
Maximum power	5 mW

Dimension





Unit: mm

Hangzhou Hikrobot Co. Ltd.
en.hikrobotics.com

© Hangzhou Hikrobot Co., Ltd. All Rights Reserved.
Hangzhou Hikrobot 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.