

MV-IDH3000B

Wireless Handheld Code Reader



Introduction

MV-IDH3000B wireless 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. With smart bases, the code reader can realize charging and data communication.

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.
- Adopts Bluetooth 5.0 wireless technology to provide convenient and efficient operations.
- With smart bases, parameter configuration and device management via IDMVS client software are supported.

Available Model

- Near distance, red light, with network charging base set: MV-IDH3000B/13NR/05RN/LS
- Near distance, red light, with network charging base set, support industrial protocols: MV-IDH3000B/13NR/05RN/LES
- Near distance, red light, with USB charging base set: MV-IDH3000B/13NR/05RN/US
- Standard distance, red light, with network charging base set: MV-IDH3000B/13SR/05RN/LS
- Standard distance, red light, with network charging base set, support industrial protocols: MV-IDH3000B/13SR/05RN/LES
- Standard distance, red light, with USB charging base set: MV-IDH3000B/13SR/05RN/US
- Standard distance, white light, polarized, with network charging base set: MV-IDH3000B/13SR/05WP/LS
- Standard distance, white light, polarized, with USB charging base set: MV-IDH3000B/13SR/05WP/US
- Near distance, handheld code reader only: MV-IDH3000B/13NR/05RN
- Standard distance, handheld code reader only: MV-IDH3000B/13SR/05RN

Applicable Industry

Consumer electronics, medical treatment, appliance manufacturing, etc.

Specification

Model	MV-IDH3000B/13NR/05RN/LS	MV-IDH3000B/13SR/05RN/LS
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, GS1-DM, GS1-QR, Han Xin Stacked code: PDF417	
Min. accuracy	3 mil	4 mil
Sensor type	CMOS	
Resolution	1280 × 1024	
Depth of field*	Code 128 (3 mil): 25 mm to 70 mm Code 128 (10 mil): 10 mm to 170 mm Code 39 (5 mil): 15 mm to 100 mm Data Matrix (5 mil): 30 mm to 60 mm Data Matrix (10 mil): 5 mm to 115 mm	Code 39 (5 mil): 40 mm to 160 mm Code 128 (10 mil): 10 mm to 400 mm Data Matrix (10 mil): 30 mm to 200 mm QR Code (15 mil): 15 mm to 280 mm QR Code (20 mil): 20 mm to 370 mm
Field of view	Horizontal 40°, vertical 34°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Communication mode	Bluetooth BT 5.0, BLE	
Wireless range	100 m (open area)	
Electrical feature		
Battery	3150 mAh	
Charging time	Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)	
Mechanical		
Focal length	4.7 mm	
Ambient illumination	0 lux to 100000 lux	
Light source	Red LED	
Aiming system	Cross laser aiming	
Prompt	LED indicator, buzzer, vibrator	
Dimension	74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1")	
Weight	Approx. 230 g (0.5 lb.)	
Ingress protection	IP52	
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)	
Humidity	20% RH to 80% RH (no condensation)	
Drop height	Dropping: 1.8 m, 50 times Rolling: 0.5 m, 1200 times	
Static electricity resistant	± 16 kV (air discharge), ± 8 kV (contact discharge)	
General		
Client software	IDMVS	
Certification	CE, KC	

Smart Base	
Model	MV-IDH3000B/SBASE/L
Communication protocol	SmartSDK, TCP Client, FTP, TCP Server, UDP, Serial (RS-232), Bluetooth
Data interface	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Power supply	12 VDC to 24 VDC
Current consumption	0.7 A (max.), 0.06 A (during standby)
Charging time	4 h
Dimension	100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")
Weight	Approx. 180 g (0.4 lb.)
Ingress protection	IP40
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)
Humidity	20% RH to 80% RH (no condensation)

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

Specification

Model	MV-IDH3000B/13NR/05RN/US	MV-IDH3000B/13SR/05RN/US
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, GS1-DM, GS1-QR, Han Xin Stacked code: PDF417	
Min. accuracy	3 mil	4 mil
Sensor type	CMOS	
Resolution	1280 × 1024	
Depth of field*	Code 128 (3 mil): 25 mm to 70 mm Code 128 (10 mil): 10 mm to 170 mm Code 39 (5 mil): 15 mm to 100 mm Data Matrix (5 mil): 30 mm to 60 mm Data Matrix (10 mil): 5 mm to 115 mm	Code 39 (5 mil): 40 mm to 160 mm Code 128 (10 mil): 10 mm to 400 mm Data Matrix (10 mil): 30 mm to 200 mm QR Code (15 mil): 15 mm to 280 mm QR Code (20 mil): 20 mm to 370 mm
Field of view	Horizontal 40°, vertical 34°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Communication mode	Bluetooth BT 5.0, BLE	
Wireless range	100 m (open area)	
Electrical feature		
Battery	3150 mAh	
Charging time	Shutdown mode: USB 2.0 (5 V, 500 mA): 8.5 h, USB 3.0 (5 V, 1 A): 8.5 h 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)	

Mechanical	
Focal length	4.7 mm
Ambient illumination	0 lux to 100000 lux
Light source	Red LED
Aiming system	Cross laser aiming
Prompt	LED indicator, buzzer, vibrator
Dimension	74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1")
Weight	Approx. 230 g (0.5 lb.)
Ingress protection	IP52
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)
Humidity	20% RH to 80% RH (no condensation)
Drop height	Dropping: 1.8 m, 50 times Rolling: 0.5 m, 1200 times
Static electricity resistant	± 16 kV (air discharge), ± 8 kV (contact discharge)
General	
Client software	IDMVS
Certification	CE, KC
Smart Base	
Model	MV-IDH3000B/SBASE/U
Communication protocol	SmartSDK, USB (HID/CDC), Bluetooth, Serial (RS-232)
Data interface	USB 2.0, USB 3.0, RS-232, DC terminal ¹
Power supply	USB: 5 VDC DC terminal: 12 VDC to 24VDC
Current consumption	USB 2.0: 1.5 A (max.), 0.14 A (during standby) DC terminal: 0.7 A (max.), 0.06 A (during standby)
Charging time	USB: 8.5 h
Dimension	100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")
Weight	Approx. 180 g (0.4 lb.)
Ingress protection	IP40
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)
Humidity	20% RH to 80% RH (no condensation)

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

1: The device can be powered via USB or DC terminal. Power supply via DC terminal is recommended.

Specification

Model	MV-IDH3000B/13NR/05RN/LES	MV-IDH3000B/13SR/05RN/LES
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, GS1-DM, GS1-QR, Han Xin Stacked code: PDF417	
Min. accuracy	3 mil	4 mil
Sensor type	CMOS	
Resolution	1280 × 1024	
Depth of field*	Code 128 (3 mil): 25 mm to 70 mm Code 128 (10 mil): 10 mm to 170 mm Code 39 (5 mil): 15 mm to 100 mm Data Matrix (5 mil): 30 mm to 60 mm Data Matrix (10 mil): 5 mm to 115 mm	Code 39 (5 mil): 40 mm to 160 mm Code 128 (10 mil): 10 mm to 400 mm Data Matrix (10 mil): 30 mm to 200 mm QR Code (15 mil): 15 mm to 280 mm QR Code (20 mil): 20 mm to 370 mm
Field of view	Horizontal 40°, vertical 34°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Communication mode	Bluetooth BT 5.0, BLE	
Wireless range	100 m (open area)	
Electrical feature		
Battery	3150 mAh	
Charging time	Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)	
Mechanical		
Focal length	4.7 mm	
Ambient illumination	0 lux to 100000 lux	
Light source	Red LED	
Aiming system	Cross laser aiming	
Prompt	LED indicator, buzzer, vibrator	
Dimension	74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1")	
Weight	Approx. 230 g (0.5 lb.)	
Ingress protection	IP52	
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)	
Humidity	20% RH to 80% RH (no condensation)	
Drop height	Dropping: 1.8 m, 50 times Rolling: 0.5 m, 1200 times	
Static electricity resistant	± 16 kV (air discharge), ± 8 kV (contact discharge)	
General		
Client software	IDMVS	
Certification	CE, KC	

Smart Base	
Model	MV-IDH3000B/SBASE/L
Communication protocol	SmartSDK, TCP Client, FTP, TCP Server, Profinet, Ethernet/IP, Modbus, UDP, Serial (RS-232), Bluetooth, MC/SLMP, FINS ¹
Data interface	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Power supply	12 VDC to 24 VDC
Current consumption	0.7 A (max.), 0.06 A (during standby)
Charging time	4 h
Dimension	100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")
Weight	Approx. 180 g (0.4 lb.)
Ingress protection	IP40
Temperature	Working temperature: -10 °C to 50 °C (14 °F to 122 °F) Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)
Humidity	20% RH to 80% RH (no condensation)

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

1: Communication protocols including Profinet, Ethernet/IP, and Modbus are available for the device which supports industrial protocols.

Specification

Model	MV-IDH3000B/13SR/05WP/LS	MV-IDH3000B/13SR/05WP/US
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, GS1-DM, GS1-QR, Han Xin Stacked code: PDF417	
Min. accuracy	4 mil	
Sensor type	CMOS	
Resolution	1280 × 1024	
Depth of field*	Code 39 (5 mil): 40 mm to 160 mm Code 128 (10 mil): 10 mm to 400 mm Data Matrix (10 mil): 30 mm to 200 mm QR Code (15 mil): 15 mm to 280 mm QR Code (20 mil): 20 mm to 370 mm	
Field of view	Horizontal 40°, vertical 34°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Communication mode	Bluetooth BT 5.0, BLE	
Wireless range	100 m (open area)	
Electrical feature		
Battery	3150 mAh	
Charging time	Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h	Shutdown mode: USB 2.0 (5 V, 500 mA): 8.5 h, USB 3.0 (5 V, 1 A): 8.5 h, 12 VDC (12 V, 2 A): 3.5 h

Endurance	13 h (interval scanning, once in 2 seconds)	
Mechanical		
Focal length	4.7 mm	
Ambient illumination	0 lux to 100000 lux	
Light source	White LED (polarized)	
Aiming system	Cross laser aiming	
Prompt	LED indicator, buzzer, vibrator	
Dimension	74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1")	
Weight	Approx. 230 g (0.5 lb.)	
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Smart Base		
Model	MV-IDH3000B/SBASE/L	MV-IDH3000B/SBASE/U
Communication protocol	SmartSDK, TCP Client, FTP, TCP Server, UDP, Serial (RS-232), Bluetooth	SmartSDK, USB (HID/CDC), Bluetooth, Serial (RS-232)
Data interface	Fast Ethernet (100 Mbit/s), RS-232, DC terminal	USB 2.0, USB 3.0, RS-232, DC terminal ¹
Power supply	12 VDC to 24 VDC	USB: 5 VDC DC terminal: 12 VDC to 24VDC
Current consumption	0.7 A (max.), 0.06 A (during standby)	USB 2.0: 1.5 A (max.), 0.14 A (during standby) DC terminal: 0.7 A (max.), 0.06 A (during standby)
Charging time	4 h	USB: 8.5 h
Dimension	100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")	
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*Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.

1: The device can be powered via USB or DC terminal. Power supply via DC terminal is recommended.

Laser Information of IDH3000B Series Product

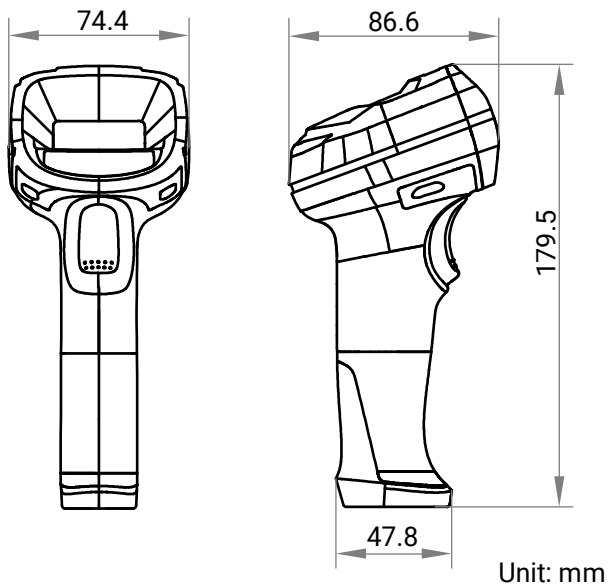
Laser safety class	Laser 2
Wavelength	650 nm
Pulse width	8 ms
Maximum power	1 mW

Accessories

- Smart base with USB interface: MV-IDH3000B/SBASE/U
- Smart base with network interface: MV-IDH3000B/SBASE/L

Dimension

Wireless Handheld Code Reader:



Smart Base:

