

# MV-IDH3013B

## 1.3 MP Wireless Handheld Code Reader



### Introduction

MV-IDH3013B wireless handheld code reader adopts code reading algorithm and can read different types of 1D and 2D codes, and output results rapidly. It has good decoding capability for codes with spots, defects and low contrast radio, and entry level DPM code. With smart bases, the code reader can realize charging and data communication.

### Key Feature

- Adopts code reading algorithm to read different types of 1D and 2D codes.
- Provides good robustness to read codes with spots, defects and low contrast radio.
- 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.

### Applicable Industry

Consumer electronics, medical treatment, appliance manufacturing, etc.

### Available Model

- MV-IDH3013B-05N-R1L
- MV-IDH3013B-05N-R1L-IP
- MV-IDH3013B-05S-R1L
- MV-IDH3013B-05S-R1L-IP
- MV-IDH3013B-05S-W1L
- MV-IDH3013B-05N-R1U
- MV-IDH3013B-05S-R1U
- MV-IDH3013B-05S-W1U
- MV-IDH3013B-05S-W1L-P
- MV-IDH3013B-05S-W1U-P

### Accessories

- Code reader with near distance (without smart base)  
MV-IDH3013B-05N-R1
- Code reader with standard distance (without smart base)  
MV-IDH3013B-05S-R1
- Smart base with Fast Ethernet:  
IBASE-02-01
- Smart base with USB interface:  
IBASE-02-02

## Specification

Model	MV-IDH3013B-05N-R1L	MV-IDH3013B-05SR1L	MV-IDH3013B-05SW1L
<b>Performance</b>			
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 25, ITF 14, UPCA, and UPCE		
	2D codes: QR Code, Data Matrix		
<b>Min. accuracy</b>	3 mil	4 mil	
<b>Max. frame rate</b>	50 fps		
<b>Sensor type</b>	CMOS, global shutter		
<b>Pixel size</b>	2.7 $\mu\text{m}$ $\times$ 2.7 $\mu\text{m}$		
<b>Sensor size</b>	1/4"		
<b>Resolution</b>	1280 $\times$ 1024		
<b>Depth of field*</b>	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	
<b>Field of view</b>	Horizontal 40°, vertical 34°		
<b>Detection angle</b>	Tilt angle $\pm$ 60°, skew angle $\pm$ 60°, rotation angle 360°		
<b>Symbol contrast</b>	20%		
<b>Wireless communication</b>			
<b>Bluetooth</b>	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE		
<b>Wireless range</b>	70 m (open range)		
<b>Communication protocol</b>	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, TCP Server, Serial, FTP, UDP, Bluetooth		
<b>Electrical feature</b>			
<b>Data interface</b>	Fast Ethernet, RS-232, DC terminal		
<b>Battery</b>	3150 mAh, chargeable lithium battery		
<b>Charging time</b>	4 h		
<b>Number of scan</b>	29000 times (full charging)		
<b>Power supply</b>	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 12 VDC to 24 VDC		
<b>Max. power consumption</b>	Wireless handheld code reader: 0.8 W@3.8 VDC, working mode: 1.6 W@3.8 VDC, sleep mode: 0.6 W@3.8 VDC Smart base: 6.6 W@12 VDC		
<b>Mechanical</b>			
<b>Focal length</b>	4.7 mm		
<b>Lens mount</b>	M5.8-mount		
<b>Ambient illumination</b>	0 lux to 100000 lux		
<b>Light source</b>	Red LED	White LED	
<b>Aiming system</b>	Cross laser aiming		
<b>Prompt</b>	LED indicator, buzzer, vibrator		
<b>Dimension</b>	Wireless handheld code reader: 74.4 mm $\times$ 86.6 mm $\times$ 179.5 mm (2.9" $\times$ 3.4" $\times$ 7.1") Smart base: 100.9 mm $\times$ 131.8 mm $\times$ 83.6 mm (4.0" $\times$ 5.2" $\times$ 3.3")		
<b>Weight</b>	Wireless handheld code reader: Approx. 230 g (0.5 lb.) Smart base: Approx. 180 g (0.4 lb.)		
<b>Ingress protection</b>	IP42		
<b>Temperature</b>	Working temperature: -20 °C to 50 °C (-4 °F to 122 °F), storage temperature: -30 °C to 60 °C (-22 °F to 140 °F), charging temperature: 0 °C to 45 °C (32 °F to 113 °F)		

## Specification

<b>Humidity</b>	20% to 80% RH, non-condensing
<b>Drop height</b>	1.5 m (59.1"), 50 times
<b>General</b>	
<b>Client software</b>	IDMVS
<b>Certification</b>	CE, KC

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

## Specification

Model	MV-IDH3013B-05N-R1U	MV-IDH3013B-05S-R1U	MV-IDH3013BSU-AGV	MV-IDH3013B-05S-W1U
<b>Performance</b>				
<b>Symbolologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 25, ITF 14, UPCA, and UPCE 2D codes: QR Code, Data Matrix			
<b>Min. accuracy</b>	3 mil	4 mil		
<b>Max. frame rate</b>	50 fps			
<b>Sensor type</b>	CMOS, global shutter			
<b>Pixel size</b>	2.7 μm × 2.7 μm			
<b>Sensor size</b>	1/4"			
<b>Resolution</b>	1280 × 1024			
<b>Depth of field*</b>	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		
<b>Field of view</b>	Horizontal 40°, vertical 34°			
<b>Detection angle</b>	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°			
<b>Symbol contrast</b>	20%			
<b>Wireless communication</b>				
<b>Bluetooth</b>	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE			
<b>Wireless range</b>	70 m (open range)			
<b>Communication protocol</b>	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC), Bluetooth			
<b>Electrical feature</b>				
<b>Data interface</b>	USB2.0, DC terminal			
<b>Battery</b>	3150 mAh, chargeable lithium battery			
<b>Charging time</b>	8.5 h (USB)			
<b>Number of scan</b>	29000 times (full charging)			
<b>Power supply</b>	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)			
<b>Max. power consumption</b>	Wireless handheld code reader: 0.8 W@3.8 VDC, working mode: 1.6 W@3.8 VDC, sleep mode: 0.6 W@3.8 VDC Smart base: 4.5 W@5 VDC (USB), 6.6 W@12 VDC (DC terminal)			
<b>Mechanical</b>				
<b>Focal length</b>	4.7 mm			
<b>Lens mount</b>	M5.8-mount			
<b>Ambient illumination</b>	0 lux to 100000 lux			

## Specification

<b>Light source</b>	Red LED	White LED
<b>Aiming system</b>	Cross laser aiming	
<b>Prompt</b>	LED indicator, buzzer, vibrator	
<b>Dimension</b>	Wireless handheld code reader: 74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1") Smart base: 100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")	
<b>Weight</b>	Wireless handheld code reader: Approx. 230 g (0.5 lb.) Smart base: Approx. 180 g (0.4 lb.)	
<b>Ingress protection</b>	IP42	
<b>Temperature</b>	Working temperature: -20 °C to 50 °C (-4 °F to 122 °F), storage temperature: -30 °C to 60 °C (-22 °F to 140 °F), charging temperature: 0 °C to 45 °C (32 °F to 113 °F)	
<b>Humidity</b>	20% to 80% RH, non-condensing	
<b>Drop height</b>	1.5 m (59.1"), 50 times	
<b>General</b>		
<b>Client software</b>	IDMVS	
<b>Certification</b>	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-IDH3013B-05N-R1L-IP	MV-IDH3013B-05S-R1L-IP
<b>Performance</b>		
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 25, ITF 14, UPCA, and UPCE 2D codes: QR Code, Data Matrix	
<b>Min. accuracy</b>	3 mil	4 mil
<b>Max. frame rate</b>	50 fps	
<b>Sensor type</b>	CMOS, global shutter	
<b>Pixel size</b>	2.7 μm × 2.7 μm	
<b>Sensor size</b>	1/4"	
<b>Resolution</b>	1280 × 1024	
<b>Depth of field*</b>	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
<b>Field of view</b>	Horizontal 40°, vertical 34°	
<b>Detection angle</b>	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
<b>Symbol contrast</b>	20%	
<b>Wireless communication</b>		
<b>Bluetooth</b>	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE	
<b>Wireless range</b>	70 m (open range)	
<b>Communication protocol</b>	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, Serial, FTP, TCP Server, UDP, Bluetooth, Ethernet/IP, Profinet, Modbus	
<b>Electrical feature</b>		
<b>Data interface</b>	Fast Ethernet, RS-232, DC terminal	
<b>Battery</b>	3150 mAh, chargeable lithium battery	
<b>Charging time</b>	4 h	

<b>Number of scan</b>	29000 times (full charging)
<b>Power supply</b>	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 12 VDC to 24 VDC
<b>Max. power consumption</b>	Wireless handheld code reader: 0.8 W@3.8 VDC, working mode: 1.6 W@3.8 VDC, sleep mode: 0.6 W@3.8 VDC Smart base: 6.6 W@12 VDC
<b>Mechanical</b>	
<b>Focal length</b>	4.7 mm
<b>Lens mount</b>	M5.8-mount
<b>Ambient illumination</b>	0 lux to 100000 lux
<b>Light source</b>	Red LED
<b>Aiming system</b>	Cross laser aiming
<b>Prompt</b>	LED indicator, buzzer, vibrator
<b>Dimension</b>	Wireless handheld code reader: 74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1") Smart base: 100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")
<b>Weight</b>	Wireless handheld code reader: Approx. 230 g (0.5 lb.) Smart base: Approx. 180 g (0.4 lb.)
<b>Ingress protection</b>	IP42
<b>Temperature</b>	Working temperature: -20 °C to 50 °C (-4 °F to 122 °F), storage temperature: -30 °C to 60 °C (-22 °F to 140 °F), charging temperature: 0 °C to 45 °C (32 °F to 113 °F)
<b>Humidity</b>	20% to 80% RH, non-condensing
<b>Drop height</b>	1.5 m (59.1"), 50 times
<b>General</b>	
<b>Client software</b>	IDMVS
<b>Certification</b>	CE, KC

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

## Specification

Model	MV-IDH3013B-05S-W1L-P	MV-IDH3013B-05S-W1U-P
<b>Performance</b>		
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 25, ITF 14, UPCA, and UPCE 2D codes: QR Code, Data Matrix	
<b>Min. accuracy</b>	4 mil	
<b>Max. frame rate</b>	50 fps	
<b>Sensor type</b>	CMOS, global shutter	
<b>Pixel size</b>	2.7 μm × 2.7 μm	
<b>Sensor size</b>	1/4"	
<b>Resolution</b>	1280 × 1024	
<b>Depth of field*</b>	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	
<b>Field of view</b>	Horizontal 40°, vertical 34°	
<b>Detection angle</b>	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
<b>Symbol contrast</b>	20%	

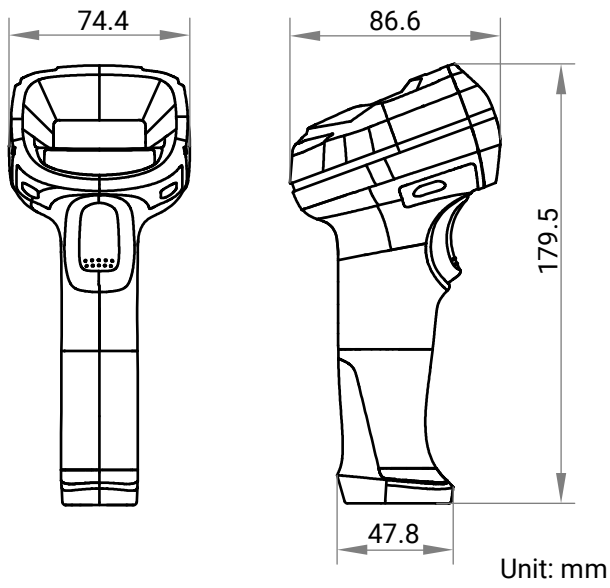
## Specification

<b>Wireless communication</b>		
<b>Bluetooth</b>	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE	
<b>Wireless range</b>	70 m (open range)	
<b>Communication protocol</b>	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, Serial, FTP, TCP Server, UDP, Bluetooth	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC), Bluetooth
<b>Electrical feature</b>		
<b>Data interface</b>	Fast Ethernet, RS-232, DC terminal	USB2.0, DC terminal
<b>Battery</b>	3150 mAh, chargeable lithium battery	
<b>Charging time</b>	4 h	8.5 h (USB)
<b>Number of scan</b>	29000 times (full charging)	
<b>Power supply</b>	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 12 VDC to 24 VDC	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)
<b>Max. power consumption</b>	Wireless handheld code reader: 0.8 W@3.8 VDC, working mode: 1.6 W@3.8 VDC, sleep mode: 0.6 W@3.8 VDC Smart base: 6.6 W@12 VDC	Wireless handheld code reader: 0.8 W@3.8 VDC, working mode: 1.6 W@3.8 VDC, sleep mode: 0.6 W@3.8 VDC Smart base: 4.5 W@5 VDC (USB), 6.6 W@12 VDC (DC terminal)
<b>Mechanical</b>		
<b>Focal length</b>	4.7 mm	
<b>Lens mount</b>	M5.8-mount	
<b>Ambient illumination</b>	0 lux to 100000 lux	
<b>Light source</b>	White LED	
<b>Aiming system</b>	Cross laser aiming	
<b>Prompt</b>	LED indicator, buzzer, vibrator	
<b>Dimension</b>	Wireless handheld code reader: 74.4 mm × 86.6 mm × 179.5 mm (2.9" × 3.4" × 7.1") Smart base: 100.9 mm × 131.8 mm × 83.6 mm (4.0" × 5.2" × 3.3")	
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<b>Humidity</b>	20% to 80% RH, non-condensing	
<b>Drop height</b>	1.5 m (59.1"), 50 times	
<b>General</b>		
<b>Client software</b>	IDMVS	
<b>Certification</b>	CE, KC	

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

## Dimension

Wireless Handheld Code Reader:



Smart Base:

