

# MV-IDH3013

## 1.3 MP Wired Handheld Code Reader



### Introduction

MV-IDH3013 wired 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 ratio, and entry level DPM code.

### 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 ratio.
- Supports continuous code reading, batch code reading for improving code reading efficiency.
- Supports multiple communication protocols, including TCP, Serial, FTP, UDP, USB HID, etc.
- Easy to replace components.

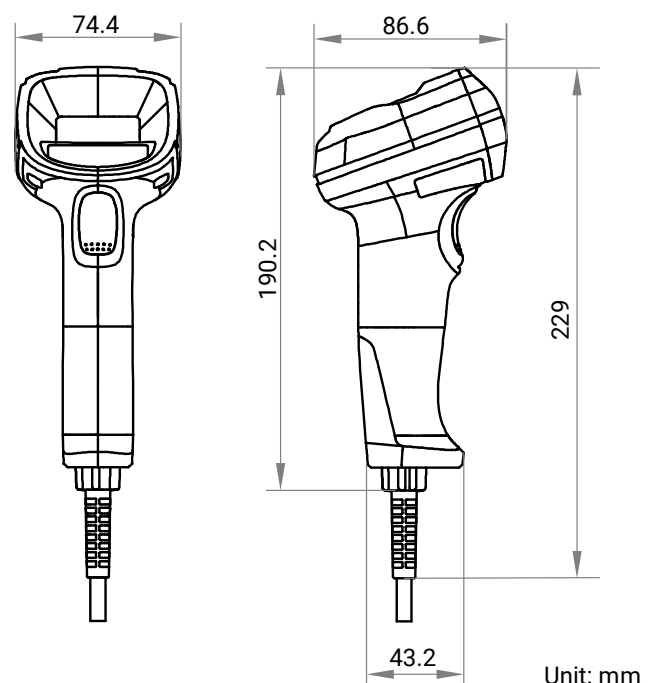
### Applicable Industry

Consumer electronics, medical treatment, appliance manufacturing, etc.

### Available Model

- MV-IDH3013-05N-R1L
- MV-IDH3013-05N-R1L-IP
- MV-IDH3013-05S-R1L
- MV-IDH3013-05S-R1L-IP
- MV-IDH3013-05S-W1L
- MV-IDH3013-05N-R1U
- MV-IDH3013-05S-R1U
- MV-IDH3013-05S-W1U
- MV-IDH3013-05S-W1L-P
- MV-IDH3013-05S-W1U-P

### Dimension



Specification

Model	MV-IDH3013-05N-R1L(U)	MV-IDH3013-05S-R1L(U)	MV-IDH3013-SU-AGV	MV-IDH3013-05S-W1L(U)
<b>Performance</b>				
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, Matrix 2 of 5, 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>	3 μm × 3 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 39 (5 mil): 40 mm to 160 mm	
	Code 128 (10 mil): 10 mm to 170 mm		Code 128 (10 mil): 10 mm to 400 mm	
	Code 39 (5 mil): 15 mm to 100 mm		Data Matrix (10 mil): 30 mm to 200 mm	
	Data Matrix (5 mil): 30 mm to 60 mm		QR Code (15 mil): 15 mm to 280 mm	
	Data Matrix (10 mil): 5 mm to 115 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>Communication protocol</b>	Fast Ethernet type device: SmartSDK, TCP Client, FTP, TCP Server, UDP, Serial USB type device: SmartSDK, USB (HID/CDC)			
<b>Electrical feature</b>				
<b>Data interface</b>	Fast Ethernet type device: Fast Ethernet, RS-232, DC terminal USB type device: USB2.0, DC terminal			
<b>Power supply</b>	Fast Ethernet type device: 12 VDC to 24 VDC USB type device: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)			
<b>Max. power consumption</b>	Fast Ethernet type device: 1.8 W@12 VDC USB type device: 1.5 W@5 VDC (USB), 1.8 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>	Red LED			White LED
<b>Aiming system</b>	Cross laser aiming			
<b>Prompt</b>	LED indicator, buzzer, vibrator			
<b>Dimension</b>	74.4 mm × 86.6 mm × 190.2 mm (2.9" × 3.4" × 7.5")			
<b>Weight</b>	Approx. 160 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: -40 °C to 70 °C (-40°F to 158 °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-IDH3013-05N-R1L-IP	MV-IDH3013-05S-R1L-IP
<b>Performance</b>		
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, Matrix 2 of 5, 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>	3 μm × 3 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>	
<b>Detection angle</b>	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
<b>Symbol contrast</b>	20%	
<b>Communication protocol</b>	Fast Ethernet type device: SmartSDK, TCP Client, FTP, TCP Server, UDP, Serial, Ethernet/IP, Profinet, Modbus USB type device: SmartSDK, USB (HID/CDC)	
<b>Electrical feature</b>		
<b>Data interface</b>	Fast Ethernet type device: Fast Ethernet, RS-232, DC terminal USB type device: USB2.0, DC terminal	
<b>Power supply</b>	Fast Ethernet type device: 12 VDC to 24 VDC USB type device: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)	
<b>Max. power consumption</b>	Fast Ethernet type device: 1.8 W@12 VDC USB type device: 1.5 W@5 VDC (USB), 1.8 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>	Red LED	
<b>Aiming system</b>	Cross laser aiming	
<b>Prompt</b>	LED indicator, buzzer, vibrator	
<b>Dimension</b>	74.4 mm × 86.6 mm × 190.2 mm (2.9" × 3.4" × 7.5")	
<b>Weight</b>	Approx. 160 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: -40 °C to 70 °C (-40°F to 158 °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-IDH3013-05S-W1L-P	MV-IDH3013-05S-W1U-P
<b>Performance</b>		
<b>Symbologies</b>	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, Matrix 2 of 5, 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 $\mu\text{m}$ $\times$ 2.7 $\mu\text{m}$	
<b>Sensor size</b>	1/4"	
<b>Resolution</b>	1280 $\times$ 1024	
<b>Depth of field*</b>	Code 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>Communication protocol</b>	Fast Ethernet type device: SmartSDK, TCP Client, FTP, TCP Server, UDP, Serial, Ethernet/IP, Profinet, Modbus USB type device: SmartSDK, USB (HID/CDC)	
<b>Electrical feature</b>		
<b>Data interface</b>	Fast Ethernet type device: Fast Ethernet, RS-232, DC terminal USB type device: USB2.0, DC terminal	
<b>Power supply</b>	Fast Ethernet type device: 12 VDC to 24 VDC USB type device: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)	
<b>Max. power consumption</b>	Fast Ethernet type device: 1.8 W@12 VDC USB type device: 1.5 W@5 VDC (USB), 1.8 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>	74.4 mm $\times$ 86.6 mm $\times$ 190.2 mm (2.9" $\times$ 3.4" $\times$ 7.5")	
<b>Weight</b>	Approx. 160 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: -40 °C to 70 °C (-40°F to 158 °F)	
<b>Humidity</b>	20% to 80% RH, non-condensing	
<b>Drop height</b>	1.5 m (59.1"), 50 times	

## Specification

<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.