# MACHINE VISION
SMART CODE READERS

■ SCMVS client

SCMVS client is an application software independently developed by HIKROBOT for smart cameras. It supports visual detection of images acquired by the device in real time or imported into the device, and can edit, manage and store the device scheme, which can meet the requirements of various machine vision applications such as positioning, measurement, recognition and deep learning applications.

Performance characteristics

- Support multiple platforms, compatible with Windows 32/64/10 bit operating system
- Simple interaction, facilitated the process of configuration mode, and only four steps to complete the plan to build
- Support interface data statistics and camera operation monitoring
- Support I/O, communication, time calibration, firmware upgrades, passwords and other Settings
- Support a key set camera parameters, automatically adjust the brightness focus and white balance
- Support query operation log, equipment storage and import the pictures

SCMVS
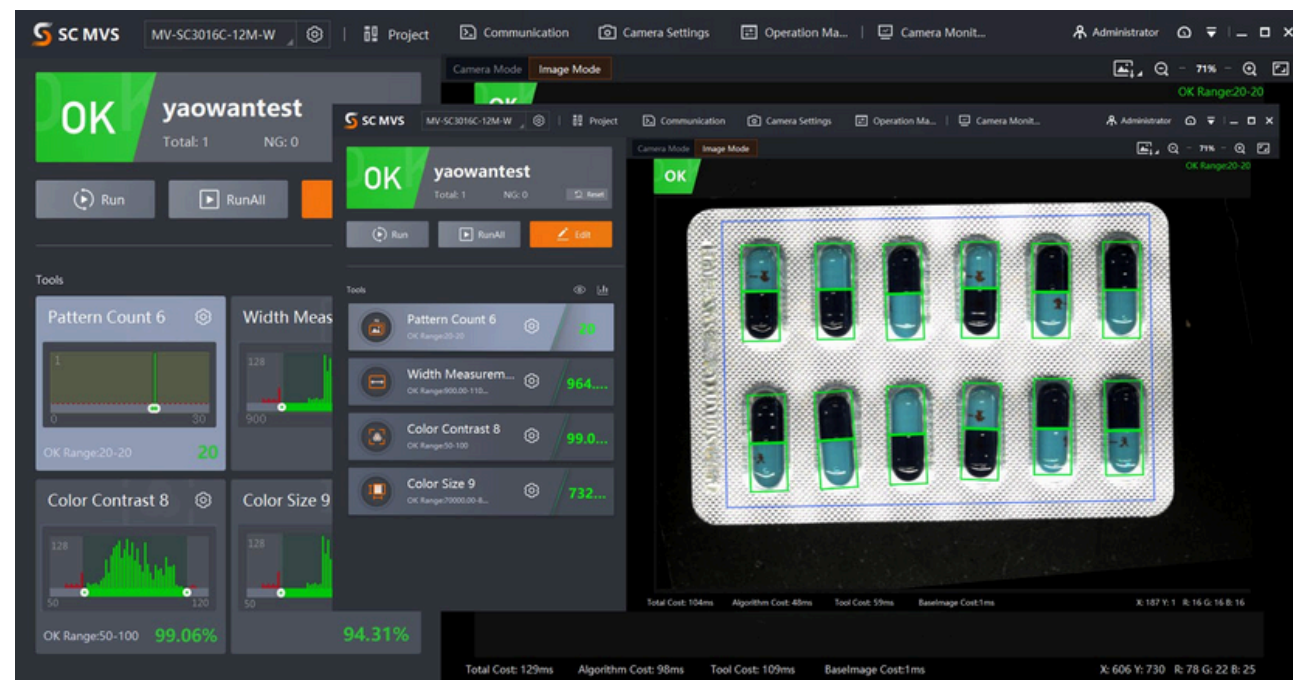
Download

SCMVS client can be downloaded by visiting the website of Hikrobot.

https://www.hikrobotics.com/en/machinevision/service/download?module=0

■ Performance and Application of Smart Code Reader

Product introduction

In the industrial application scenario, barcode marking is a very important information storage medium, mainly applied to product information, supply chain information, production information and transportation information marking. Information collection is the basis for the formation of industrial IOT, and the acquisition of barcode information is often realized by means of code readers. In industrial scenes, the uncontrollable quality of coding, fast beat, high reading rate requirements, and harsh external use environment are the factors that determine higher requirements for industrial code reader products.


Key Features

- Rich product models, covering 0.4-20MP resolutions
- Built-in deep learning code reading algorithm, models trained by a large number of samples
- Millisecond reading efficiency, easy to cope with high-speed reading scenarios
- Support mainstream industrial communication protocols, system data interfacing more easily and stably
- Deep optimization for difficult codes to achieve over 99.95% read rate in complex scenarios
- IP65 or higher protection level, high-strength anti-drop and anti-drop design, to meet the harsh industrial application scenarios
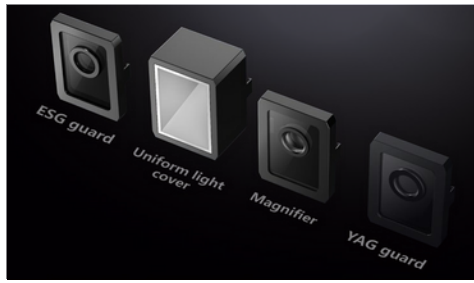
Performance

- AI support: An embedded platform equipped with powerful AI capabilities, combined with deep learning technology, significantly improves code reading efficiency
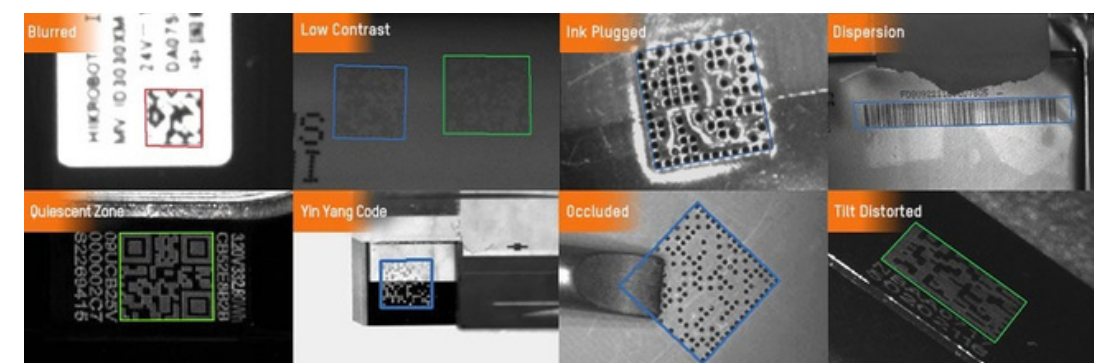
- Strong robustness: built-in deep learning decoding algorithm, million level sample model, capable of adapting to various complex working conditions
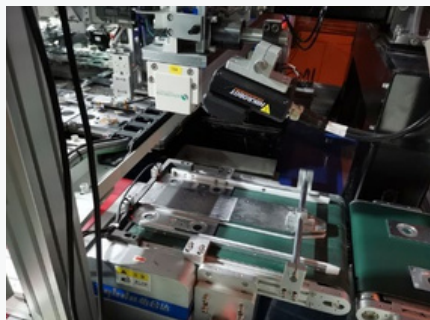
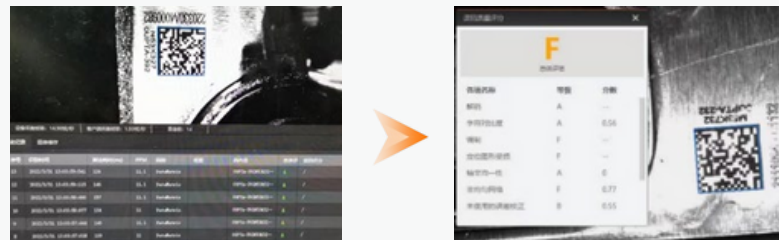• Strong adaptability: providing a variety of product accessories to cope with complex industrial environments

A **D** **F**

• Strong usability: supports coding rating and intelligent parameter adjustment
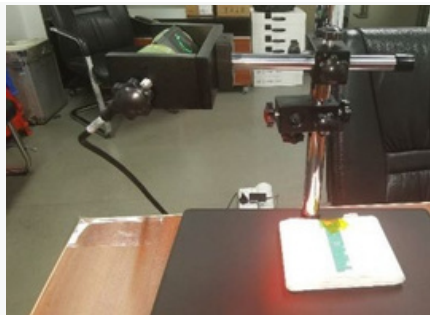
Industry Cases
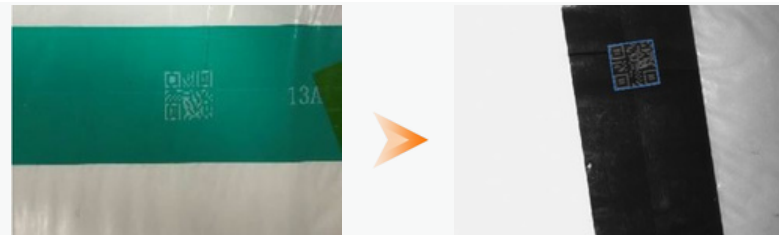
Lithium Industry

Battery top cover sheet DM code reading

Identify the DM code on the top cover piece of lithium battery, metal reflective material. ID5050 smart code reader with polarized lens hood to overcome reflections, DM code stable identification, read the code level close, read the code rate of 99.99% or more.
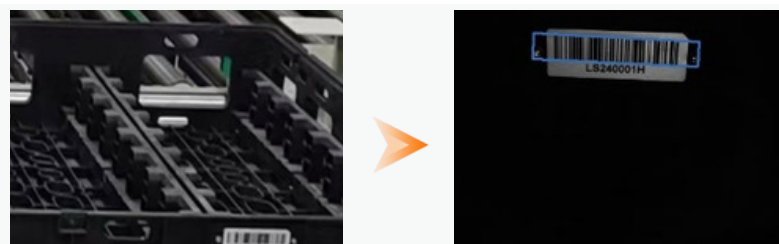

Battery cell green film code reading

After the battery cells are wound/stacked, the termination tape is usually applied for the insulation fixation of the termination part of the cells, and the quality of the cells is traced through the QR code, and the code reading rate of this solution reaches more than 99.99%.

Logistics line pallet barcode reading

Intelligent logistics system is the connecting link between various systems, and the barcode information on the pallet is used to achieve battery tracking, management, status and other information. The solution's code is repeatedly used leading to easy dirty wear and low contrast, but the reading rate reaches more than 99.99%.
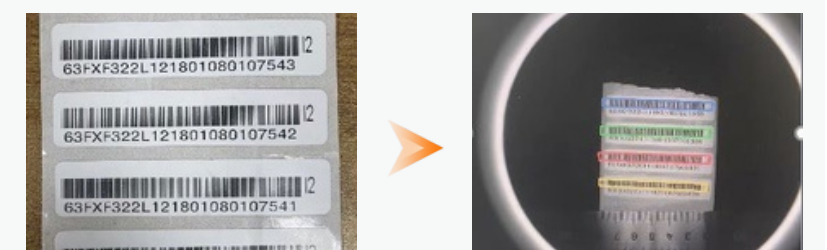
Photovoltaic Industry
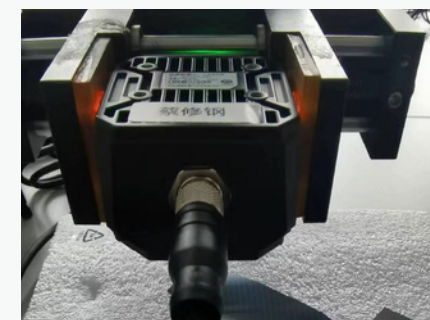

Silicon bar 2D code reading
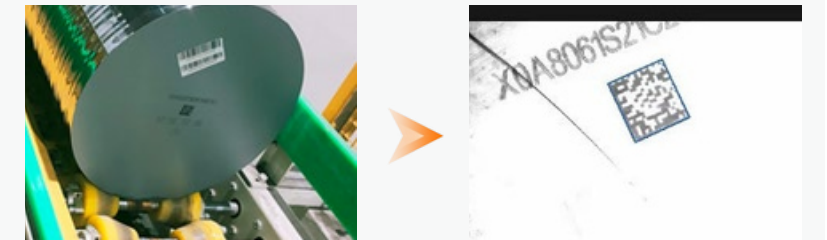
In the photovoltaic industry, after processing silicon ingots into silicon rods, the 2D code printed by laser on the end face of the rods needs to be read. The solution achieves stable reading with poor consistency and a code reading rate of over 99.9%.
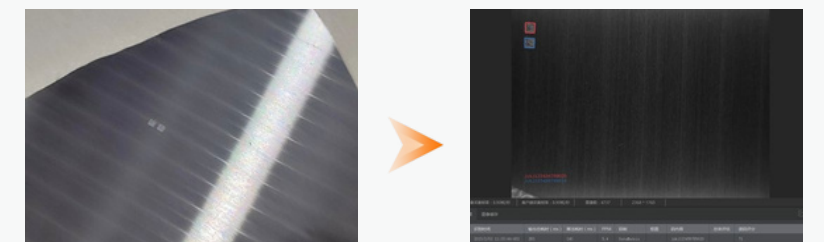

Panel 1D code reading

The Code39 code on the surface needs to be read before the panel leaves the factory. The solution 1D code stable recognition, read code rate of 99.6% or more, and the read code information uploaded to the user MES system and binding bar code information.

Very small code reading on silicon wafer

The DM code on the silicon wafer is manufactured through a special laser engraving process. The ID series industrial code reader with high-resolution accessories has the characteristics of small installation space and uniform imaging to achieve very small code reading with low contrast.

Automotive Industry

ECU cover code reading
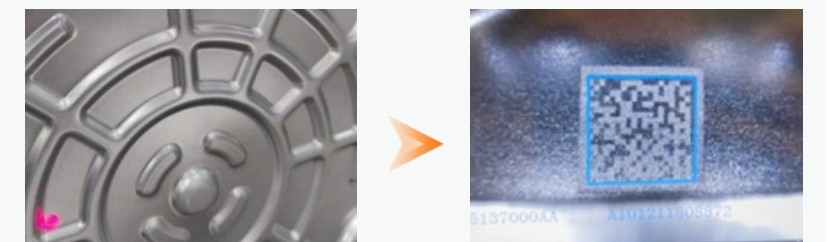
After producing an automotive ECU (Automotive Electronic Control Unit), a protective cover needs to be installed on the surface and a white 2D code printed on the surface. The solution overcomes the code quality problems of distorted reflection, low contrast and high speed rotation, and the code reading rate reaches more than 99.9%.

Automotive casting part code reading

Different casting parts DM code engraving position is different and there is depth of field. The solution is highly migratable and reusable, with a code reading rate of over 99.9%.

PCB Industry

PCB board traceability code reading
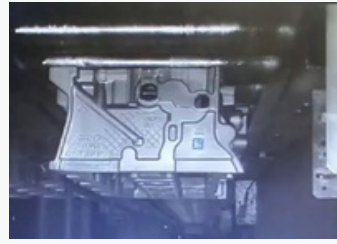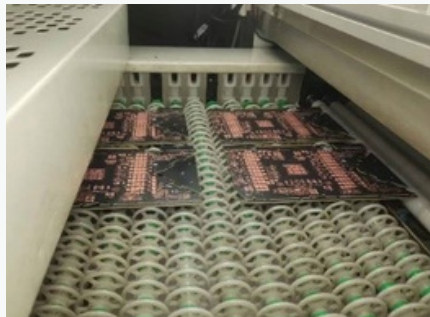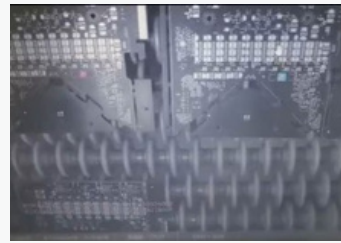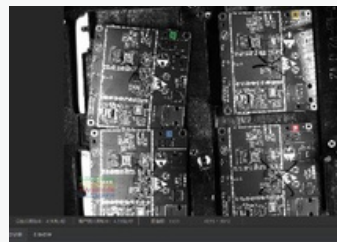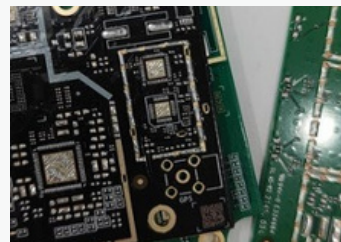
The finished production of PCB boards, read the 2D code on the assembly line, the code is small, the field of view requirements are large, and the barcode needs to be read steadily in motion. The solution achieves a large field of view to read small size codes, and the reading rate reaches more than 99.5%.

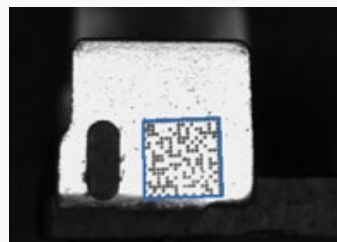Multiple base color PCB board reading codes

Multi-background color 2D code reading, including both QR code and DM code. The solution achieves stable QR code recognition with a read rate of 99.9% or more.

3C Industry

Very small code reading

With the continuous upgrade of automated production line and engraving process, the size of QR code is getting smaller and smaller. ID series industrial readers with high resolution accessories ensure stable reading of very small codes.

E-commerce logistics Industry
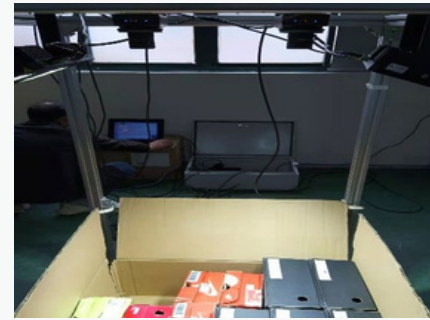
Shoe box reading code
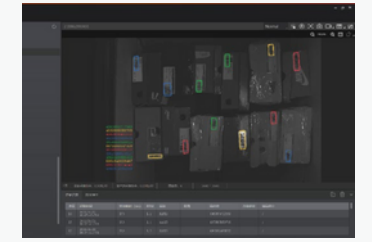
The 1D code recognition of this scene has a large field of view (more than 800mm on the long side), high code accuracy (around 8mils), and large depth of field difficulty. The program 1D code stable recognition, read code rate reached more than 99.9%.

Parcel barcode reading
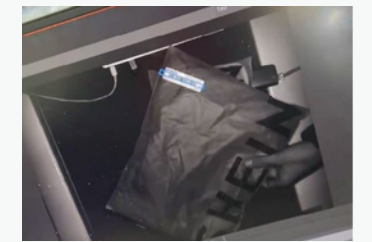
The code reader recognizes the parcel 2D code and does material sorting according to the barcode content. The solution solves the problem of distortion and folds in the code quality, efficient and stable recognition, and the reading rate reaches more than 99.9%.

Food and medicine Industry

High-speed dynamic code reading for soy sauce bottle cap

The two master-slave relationship cameras recognize the QR code on the bottle cap, overcoming the problems of high-speed code reading, distorted reflection, low contrast, and high-beat data fusion, with a code reading rate of over 99%.
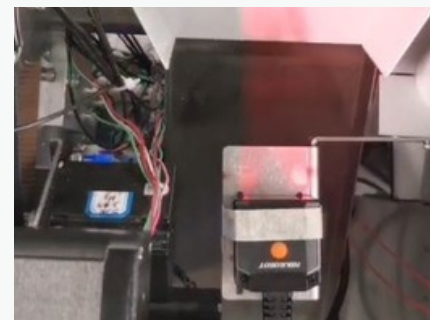
Medical test tube code reading
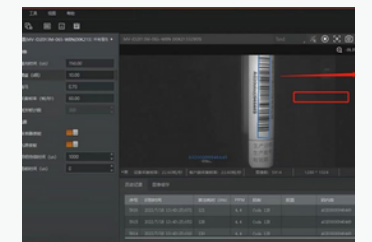
Identify the Code128 code of the test tube bottle, the barcode may appear in any position of the test tube bottle, overcome the problems of distortion reflection and high speed movement, the reading rate reaches more than 99.9%.

Smart Code Reader

■ID2000 Series Smart Code Reader

As a compact industrial barcode reader, ID2000 series can be embedded in automated machine equipment and other automated assembly line proximity barcode reading applications. Support common 1D, 2D and DPM codes, the patented lighting design provides high-quality image lighting.

Inkjet DM Code

Product Label

Metal Lattice DPM Code

Food Package Inkjet Code

Copper plate DPM Code

Logistics Label

Low-contrast DPM Code

Mini Label

• Reliable reading performance

• Ultra-compact size

Specifications

Model	Resolution	Max. frame rate	Max. reading speed	Light source	Max. power consumption	Focal Length	Working/Focus distance	Label
MV-ID2004M-06S-xBN	704 × 540	60 fps	41 codes/sec	white/blue/red	10.6 W@24 VDC	6.72 mm	40~120 mm, adjusting focus manually supported	A
MV-ID2004M-06S-xBN-U	704 × 540	60 fps	38 codes/sec	white/blue/red	4.6 W@5 VDC	6.72 mm	40~120 mm, adjusting focus manually supported	A

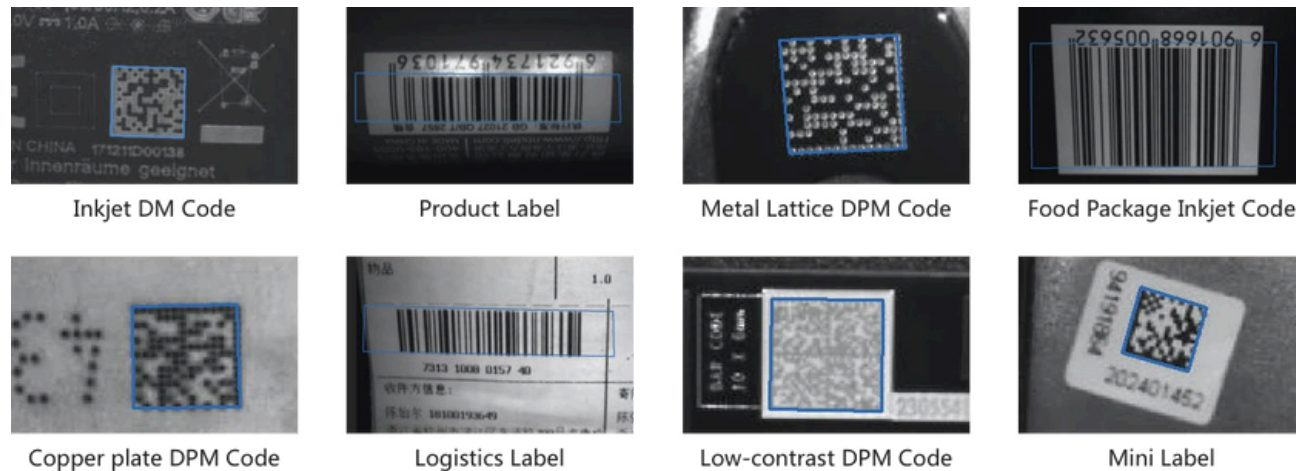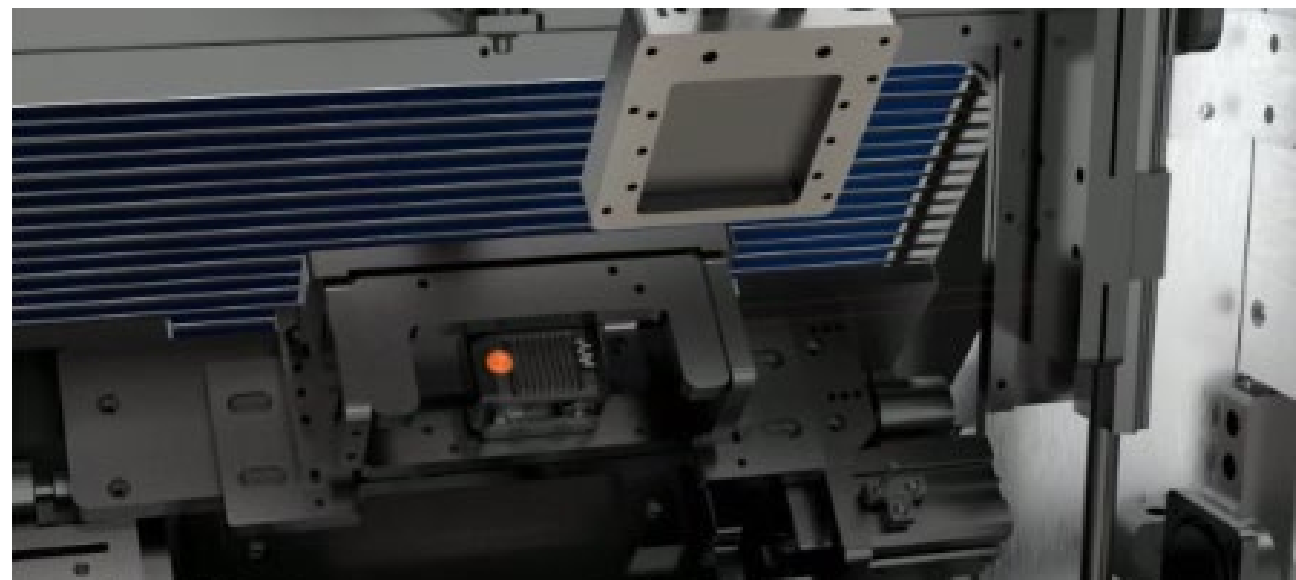| Model	Resolution	Max. frame rate	Max. reading speed	Light source	Max. power consumption 11 W@12 VDC	Focal Length	Working/Focus distance	Label
MV-ID2004M-16T	704 × 540	60 fps	45 codes/sec	red		16 mm	100~400 mm	C
MV-ID2010M-05M-WLR	1280 × 800	50 fps	34 codes/sec	white	6,24 W@24 VDC	5 mm	110 mm	B
MV-ID2010M-05M-WLR-U	1280 × 800	50 fps	32 codes/sec	white	4.4 W@5 VDC	5 mm	110 mm	B
MV-ID2013M-06S	1280 × 1024	60 fps	45 codes/sec	white/polarized red	10.6 W@24 VDC	6.72 mm	40~120 mm, adjusting focus manually supported	A
MV-ID2013M-16S-RBN	1280 × 1024	60 fps	45 codes/sec	red	24 W@12 VDC	16 mm	105~150 mm, adjusting focus manually supported	E
MV-ID2013M-25S-RBN	1280 × 1024	60 fps	45 codes/sec	red	24 W@12 VDC	25 mm	170~200 mm, adjusting focus manually supported	E
MV-ID2013M-00C-NNN	1280 × 1024	60 fps	45 codes/sec	/	6 W@12 VDC	/	/	F
MV-ID2013EP-05-xBy	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@12 VDC	4.7 mm	/	D
MV-ID2013EP-05-xBy-U	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@5 VDC	4.7 mm	/	D
MV-ID2013EM-05-xBy	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@12 VDC	4.7 mm	/	D
MV-ID2013EM-05-xBy-U	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@5 VDC	4.7 mm	/	D
MV-ID2013EM-05N-xBy	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@12 VDC	4.7 mm	/	D
MV-ID2013EM-05N-xBy-U	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@5 VDC	4.7 mm	/	D
MV-ID2013EM-05H-xBy	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@12 VDC	4.7 mm	/	D
MV-ID2013EM-05H-xBy-U	1280 × 1024	50 fps	30 codes/sec	white/blue/red/polarized	2.5 W@5 VDC	4.7 mm	40~120 mm, adjusting focus manually supported	D
MV-ID2016M-06S-xBN	1408 × 1024	60 fps	45 codes/sec	white/blue/red	10.6 W@24 VDC	6.72 mm	100~400 mm	A
MV-ID2016M-06S-xBN-U	1408 × 1024	60 fps	45 codes/sec	white/blue/red	4.6 W@5 VDC	6.72 mm		A
MV-ID2016M-xT	1408 × 1024	60 fps	45 codes/sec	white/blue/red	11 W@12 VDC	6.7mm/10mm/16 mm		C
MV-ID2016M-16S-RBN	1408 × 1024	60 fps	45 codes/sec	red	10.6 W@24 VDC	16 mm	105~150 mm, adjusting focus manually supported	E
MV-ID2016M-25S-RBN	1408 × 1024	60 fps	45 codes/sec	red	10.6 W@24 VDC	25 mm	170~200 mm , adjusting focus manually supported	E
MV-ID2016M-00C-NNN	1408 × 1024	60 fps	45 codes/sec	/	6 W@12 VDC	/	/	F

Notice: x=W represents a white light source, x=R represents a red light source, x=B represents a blue light source, y=P represents polarization, and y=N represents polarized

Dimension

A

B

C

D

E

F
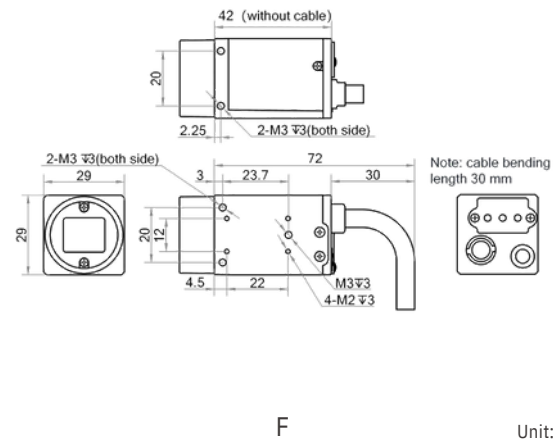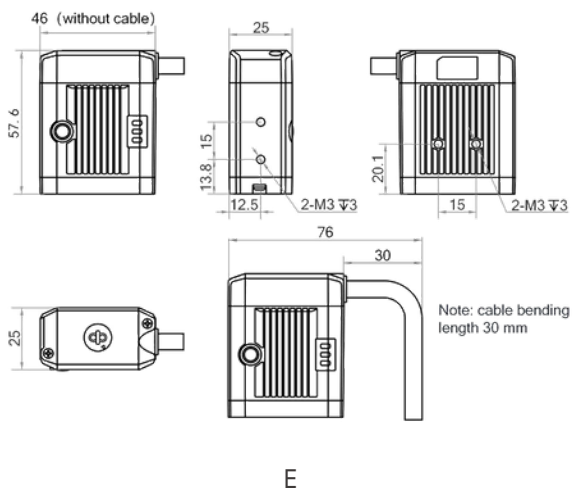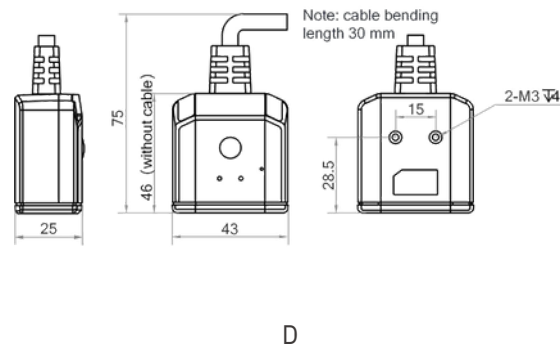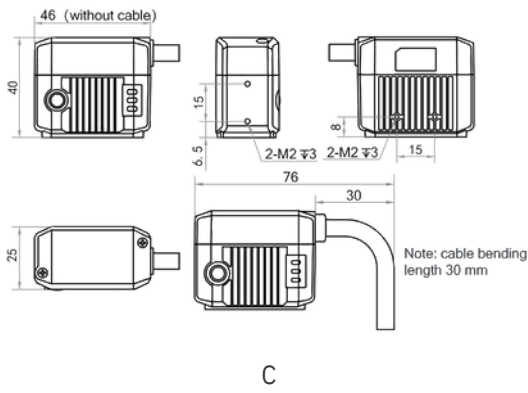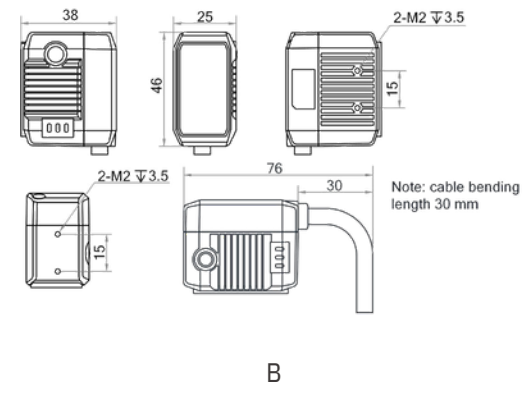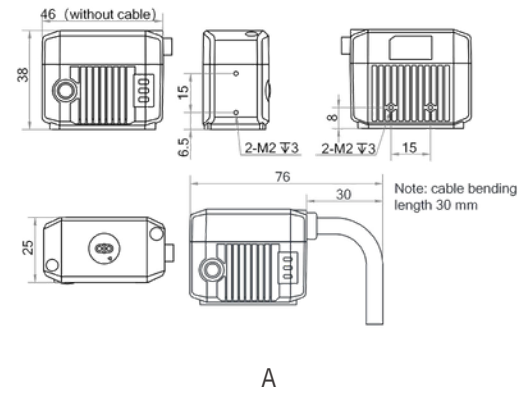
Unit:mm

Accessories

I/O Power Cables	Standard	High Softness	Adaptive Camera
2m	MV-IDA-PE-M12A17pF-opensU2DB9-ST-2m	MV-IDA-PE-M12A17pF-opensU2DB9-HF-2m	ID2000M USB
3m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-3m	MV-IDA-PE-M12A17pF-opensRJ45DB9-HF-3m	ID2000M GigE
5m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-5m	MV-IDA-PE-M12A17pF-RJ45M/DB9/Opens-SF-5m	ID2000M GigE
10m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-10m	MV-IDA-PE-M12A17pF-open/RJ45/DB9-HF-10m	ID2000EM USB
15m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-15m	MV-IDA-PE-M12A17pF-open/RJ45/DB9-HF-15m	ID2000EM USB
2m	External adapter_ID2013E ,HDB15M turn USB2.0	——	ID2000EM GigE
2.5m	MV-ACP-DB9-USB2.0-ST-2.5m	——	
3.5m	External adapter_ID2013E	——	

Power Supply	Desktop Two Wire Adapter	Switching Power Supply
Model	KPL-060M-VI	LRS-50-24

IO Box	Model
Adaptive ID2000M Camera	MV-IDA-IO-33
Adaptive ID2000EM Camera	MV-IDA-IO-22

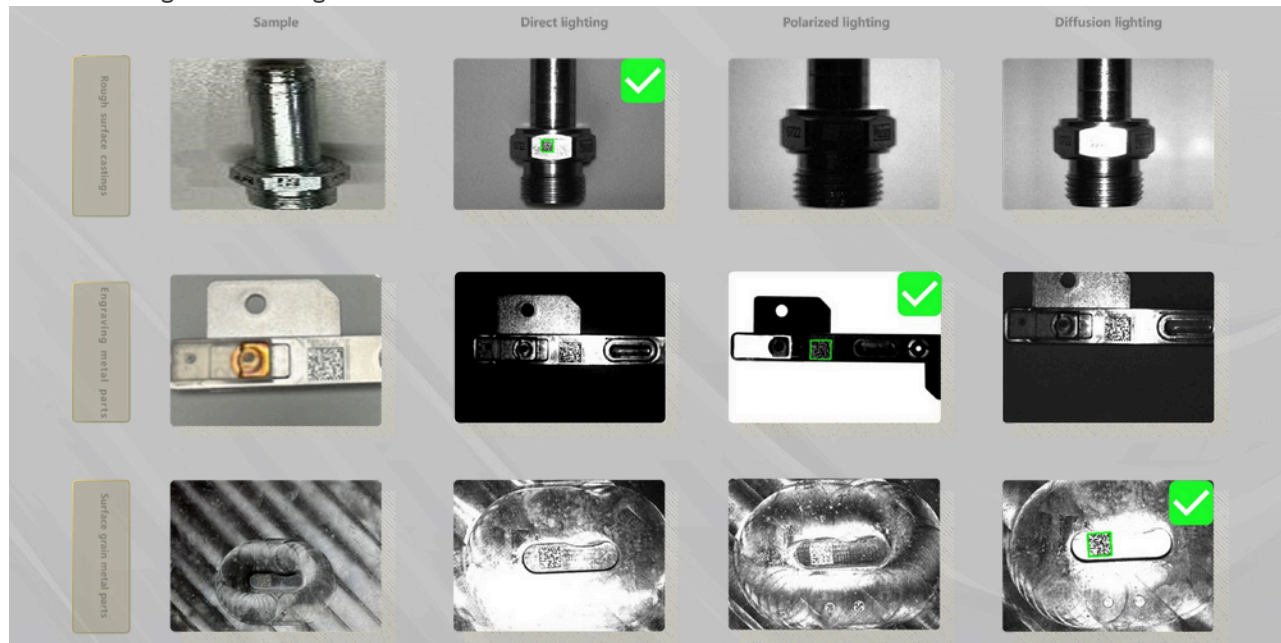| Mounting Component	Model
Standard	ID2000 Mounting Component

ID3000 Series Smart Code Reader

Based on the embedded deep-learning platform, ID3000 adopt compact & modular design. With easy debugging (mechanical focusing), automatic polarization function and controllable light source branching, ID3000 can be widely used in various code reading scenarios.

| Corner Missing | Ink Plugged | Protruding Background | Occluded |
| Blurred | Tilt Distorted | Low Contrast | Bending |
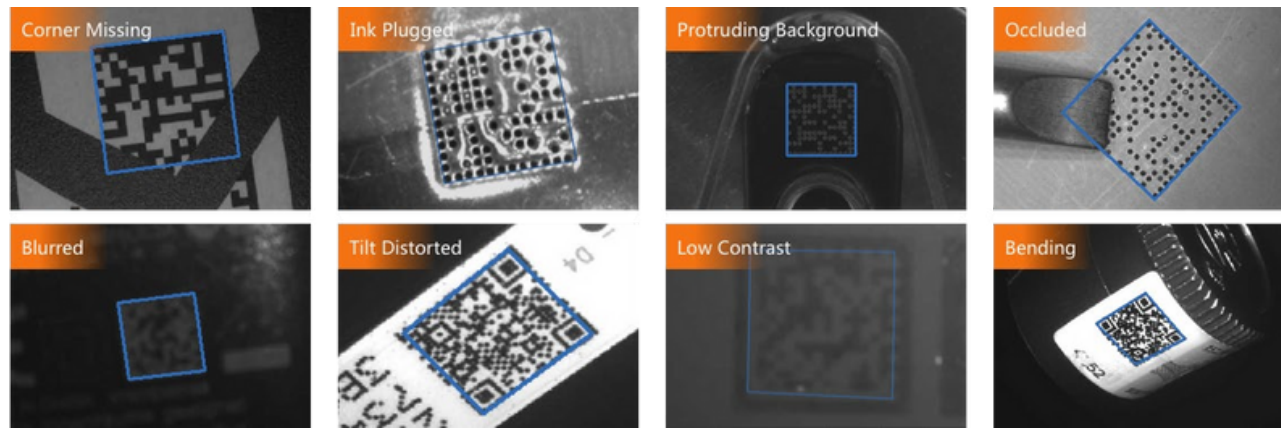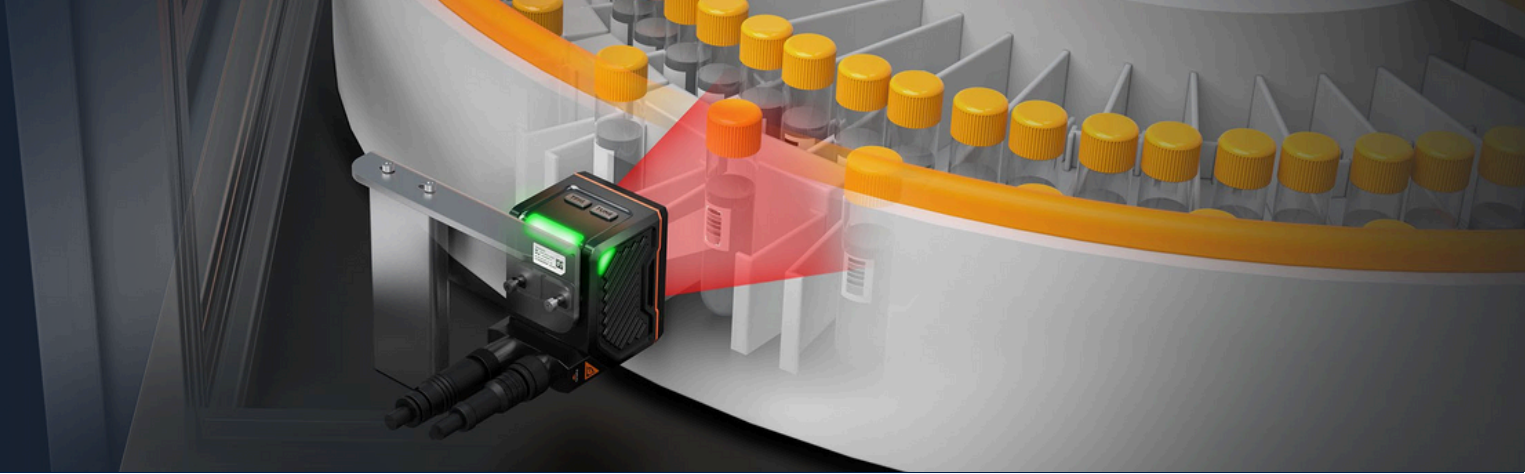
• Out-standing code reading effect

| | Sample | Direct lighting | Polarized lighting | Diffusion lighting |

• Three ways of multiple optical lighting, with strong environmental adaptability

Specifications

CE FC RoHS

Model	Resolution	Max. frame rate	Max. reading speed	Light source	Max. power consumption	Focal Length	Label
MV-ID3013PM	1280 × 1024	60 fps	84 codes/sec	white/blue/red/infrared	20 W@24 VDC	6/12/14.8 mm	A
MV-ID3016PM	1408 × 1024	60 fps	84 codes/sec	white/blue/red/infrared	20 W@24 VDC	6/12/14.8 mm	B
MV-ID3016XM	1408 × 1024	60 fps	90 codes/sec	white/blue/red/infrared	6.2 W@24 VDC	6/12/16/25 mm	C
MV-ID3030XM	2048 × 1536	60 fps	90 codes/sec	white/blue/red/infrared	6.2 W@24 VDC	6/12/16/25 mm	C
MV-ID3050PM	2368 × 1760	30 fps	60 codes/sec	white/blue/red/infrared	10.6 W@24 VDC	8/12/16/25 mm	A
MV-ID3050XM	2368 × 1760	60 fps	90 codes/sec	white/blue/red/infrared	6.2 W@24 VDC	6/12/16/25 mm	C

Dimension

A

B

C
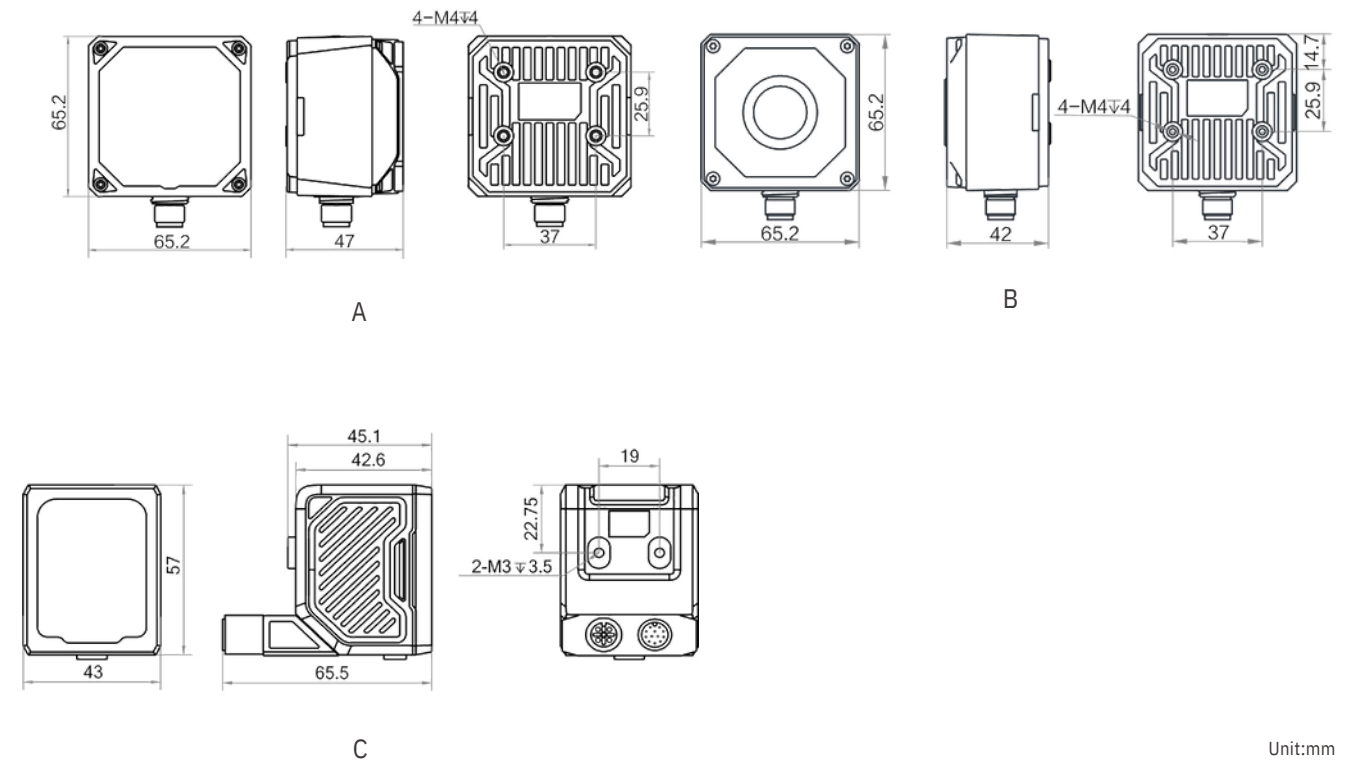
Unit:mm

Accessories

Adapt to ID3000 model

I/O Power Cables	Standard	High Softness	Adaptive Camera
3m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-3m	MV-IDA-PE-M12A17pF-opensRJ45DB9-HF-3m	MV-ACPE-M12A17F(back)-OPEN/RJ45-FL-3m
5m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-5m	MV-IDA-PE-M12A17pF-RJ45M/DB9/Opens-SF-5m	——
7m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-7m MV-IDA-PE-M12A17pF-	MV-IDA-PE-M12A17pF-RJ45M/DB9/Opens-HF-7m	——
10m	opensRJ45DB9-ST-10m MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-15m	MV-IDA-PE-M12A17pF-open/RJ45/DB9-HF-10m	——
15m		MV-IDA-PE-M12A17pF-opensRJ45DB9-HF-15m	——

Power Supply	Desktop Two Wire Adapter	Switching Power Supply
Model	KPL-060M-VI	LRS-50-24

Lens	Model
6mm	BTY0640-MP
8mm	BHYB0856-12S
12mm	BHP1256-12S
14.8mm	BTS1540-MP
16mm	BHP1656-12S
25mm	BHP2556-12S
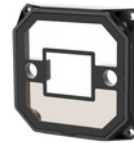
Lens Cap	ID3013/ID3050	ID3016
Transparent	ID3050 transparent lens cap	ID3016 transparent lens cap
Semi-polarization	ID3050 Semi-polarization lens cap	——
Polarization	ID3050 polarization lens cap	ID3016 polarization lens cap
Diffusion	ID3050 diffusion lens cap	——
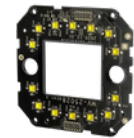
Light Source	ID3013/ID3050	ID3016 (BASE)	ID3016 (LED)
White	ID3050/ID3013 white light	ID3016 white light	ID3016 white light LED
Blue	ID3050/ID3013 blue light	ID3016 blue light	ID3016 blue light LED
Red	ID3050/ID3013 red light	ID3016 red light	ID3016 red light LED
Near-infrared	ID3050/ID3013 near-infrared light	ID3016 near-infrared light	——

Mounting Component	Model		IO Box	Model
Standard	V020-Mounting Component		Standard	MV-IDA-IO-33(N)

High Resolution Lens Cap	Model	Adapted Model
40mm	MV-IDA-C-Y-62-62-M1	MV-ID3050PM-16M-***
60mm	MV-IDA-C-Y-62-62-M2	

Adapt to ID3000X model

I/O Power Cables	Standard	High Softness	Elbow
3m	MV-IDA-P-M12A12pF-open-ST-3m	MV-IDA-P-M12A12pF-open-HF-3m	——
5m	MV-IDA-P-M12A12pF-open-ST-5m	MV-IDA-P-M12A12pF-open-HF-5m	MV-ACP-M12A12pF(up)-open-ST-5mVPU
7m	MV-IDA-P-M12A12pF-open-ST-7m	——	——
10m	MV-IDA-P-M12A12pF-open-ST-10m	MV-IDA-P-M12A12pF-open-HF-10m	——
15m	MV-IDA-P-M12A12pF-open-ST-15m	——	——
20m	——	MV-IDA-P-M12A12pF-open-HF-20m	——
30m	MV-IDA-P-M12A12pF-open-ST-30m	——	——

Gigabit Network Cable	Standard	High Softness	Elbow
3m	MV-IDA-E-M12A8pF-RJ45-ST-3m	MV-IDA-E-M12A8pF-RJ45-HF-3m	——
5m	MV-IDA-E-M12A8pF-RJ45-ST-5m	MV-IDA-E-M12A8pF-RJ45-HF-5m	MV-ACE-M12A8pMVPU
7m	MV-IDA-E-M12A8pF-RJ45-ST-7m	——	——
10m	MV-IDA-E-M12A8pF-RJ45-ST-10m	MV-IDA-E-M12A8pF-RJ45-HF-10m	——
15m	MV-IDA-E-M12A8pF-RJ45-ST-15m	——	——
20m	——	MV-IDA-E-M12A8pF-RJ45-HF-20m	——
30m	MV-IDA-E-M12A8pF-RJ45-ST-30m	——	——
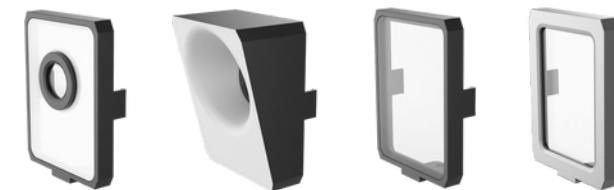
Lens Cap	Model
ID3000X	Magnifier
	Uniform light cover
	YAG guard
	ESD guard

ID5000 Series Smart Code Reader

Based on multi-core deep learning processor, the full-featured code reader brings powerful code reading performance. Equipped with mechanical focus lens and various components, ID5000 can reach up to 20M pixels, suitable for various code reading applications.
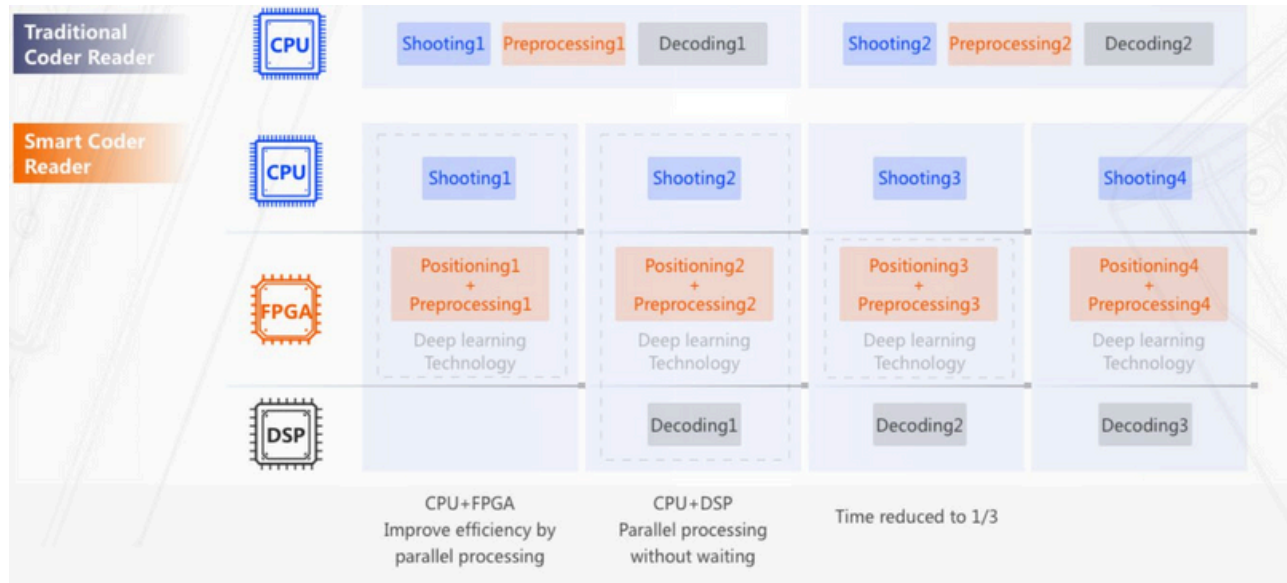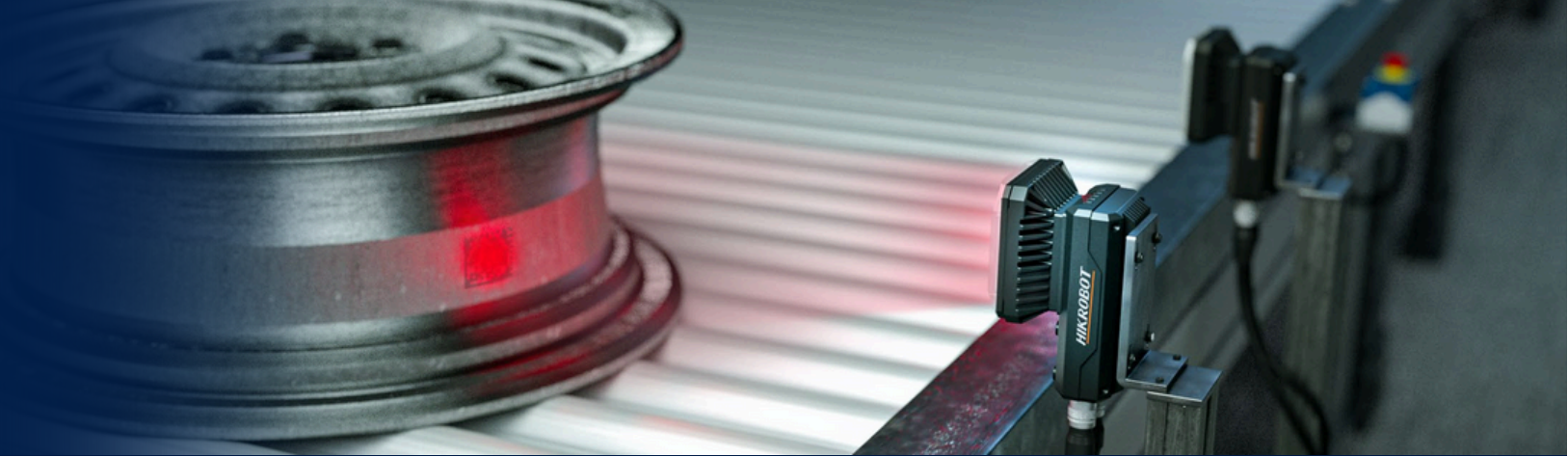
• Multi-core Processing
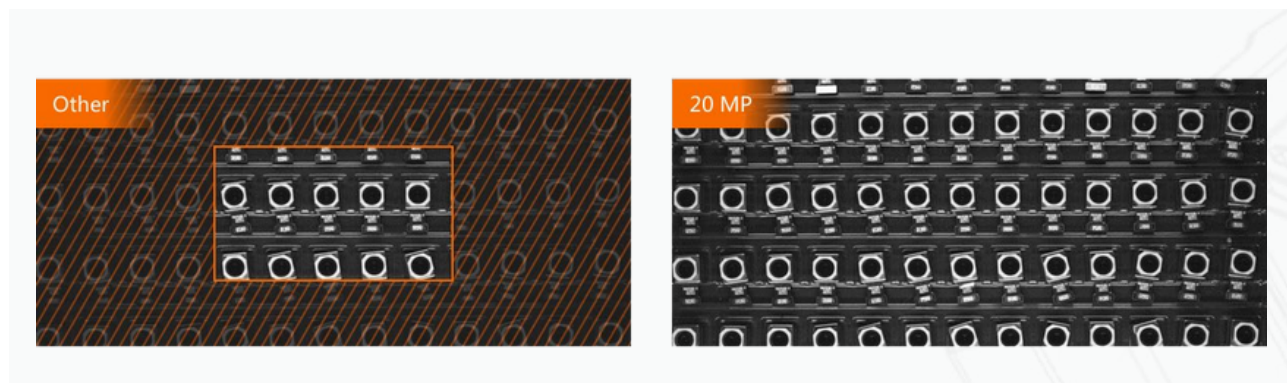
• High Accuracy & Wide View

Specifications

Model	Resolution	Max. frame rate	Max. reading speed	Light source	Max. power consumption	Focal Length	Label
MV-ID5030M-xxS-WBN	2048 × 1536	60 fps	90 codes/sec	white, optional blue/red/infrared	60 W@24 VDC	8/12/16/25 mm	A
MV-ID5050M-xxS-WBN	2368 × 1760	40 fps	90 codes/sec	white, optional blue/red/infrared	60 W@24 VDC	8/12/16/25 mm	A
MV-ID5060M-xxS-WBN	3072 × 2048	30 fps	90 codes/sec	white, optional blue/red/infrared	20 W@24 VDC	8/12/16/25 mm	B
MV-ID5060M-00C-WBN	3072 × 2048	30 fps	90 codes/sec	white, optional blue/red/infrared	23 W@24 VDC	/	C
MV-ID5060M-00C-NNN	3072 × 2048	30 fps	90 codes/sec	/	23 W@24 VDC	/	D
MV-ID5120M-00C-NNN	4096 × 3072	28 fps	84 codes/sec	/	12 W@24 VDC	/	D
MV-ID5200M-00C-NNN	5440 × 3648	20 fps	36 codes/sec	/	12 W@24 VDC	/	D

Notice: xx products with different focal Lengths

Dimension

A

B

C

D
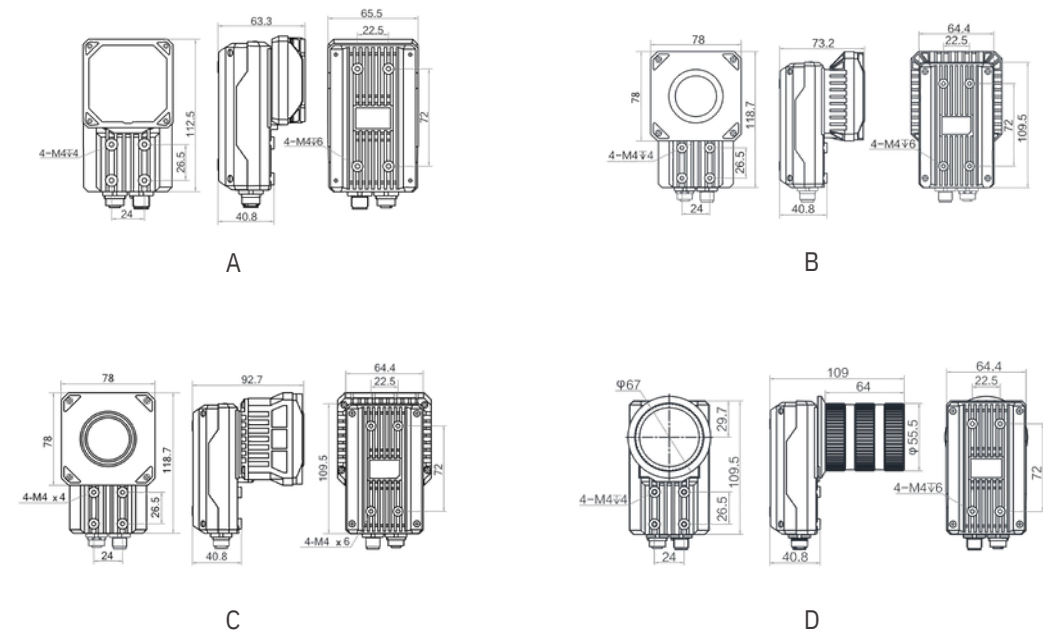
Unit:mm

Accessories

| I/O Power Cables	Standard	High Softness
3m	MV-IDA-P-M12A12pF-open-ST-3m	——
5m	MV-IDA-P-M12A12pF-open-ST-5m	MV-ACP-M12A12pF(up)-open-ST-5mVPU
7m	MV-IDA-P-M12A12pF-open-ST-7m	——
10m	MV-IDA-P-M12A12pF-open-ST-10m	MV-IDA-P-M12A12pF-open-HF-10m
15m	MV-IDA-P-M12A12pF-open-ST-15m	——
20m	——	MV-IDA-P-M12A12pF-open-HF-20m
30m	MV-IDA-P-M12A12pF-open-ST-30m	——

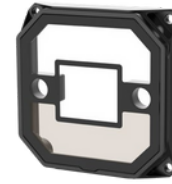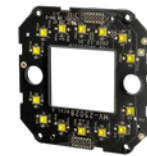| Gigabit Network Cable	Standard	High Softness
3m	MV-IDA-E-M12A8pF-RJ45-ST-3m	——
5m	MV-IDA-E-M12A8pF-RJ45-ST-5m	MV-ACE-M12A8pMVPU
7m	MV-IDA-E-M12A8pF-RJ45-ST-7m	
10m	MV-IDA-E-M12A8pF-RJ45-ST-10m	MV-IDA-E-M12A8pF-RJ45-HF-10m
15m	MV-IDA-E-M12A8pF-RJ45-ST-15m	——
20m	——	MV-IDA-E-M12A8pF-RJ45-HF-20m
30m	MV-IDA-E-M12A8pF-RJ45-ST-30m	——

Power Supply	Desktop Two Wire Adapter	Switching Power Supply
Model	KPL-060M-VI	LRS-50-24

Lens	ID5030/ID5050	ID5060	C-mount (install Lens Cap)	C-mount (not install Lens Cap)
8mm	BHYB0856-12S	BHC0856-05S	MVL-MF0828M-8MP	
12mm	BHP1256-12S	BHC1256-05S	MVL-MF1228M-8MP	
16mm	BHP1656-12S	BHC1656-05S	MVL-MF1628M-8MP	
25mm	BHP2556-12S	BHC2556-05S	MVL-MF2528M-8MP	ALL
35mm	——	——	MVL-MF3528M-8MP	
50mm	——	——	MVL-MF5028M-8MP	

Lens Cap	ID5030/ID5050	ID5060
Transparent	ID5030/ID5050 transparent lens cap	ID5060 transparent lens cap
Semi-polarization	ID5030/ID5050 Semi-polarization lens cap	——
Polarization	ID5030/ID5050 polarization lens cap	ID5060 polarization lens cap
Diffusion	ID5030/ID5050 diffusion lens cap	ID5060 diffusion lens cap

Light Source	ID5030/ID5050	ID5060
White	ID5030/ID5050 white light	ID5060 white light
Blue	ID5030/ID5050 blue light	ID5060 blue light
Red	ID5030/ID5050 red light	ID5060 red light
Near-infrared	ID5030/ID5050 near-infrared light	ID5060 near-infrared light

Mounting Component	Model
Standard	V024-Mounting Component

ID6000 Series Smart Code Reader

Image-based high-resolution barcode reader ID6000 is specialized for the logistics industry. ID6000 has especially developed in algorithm development to cope with various complex logistics code reading application scenarios.

- Powerful performance
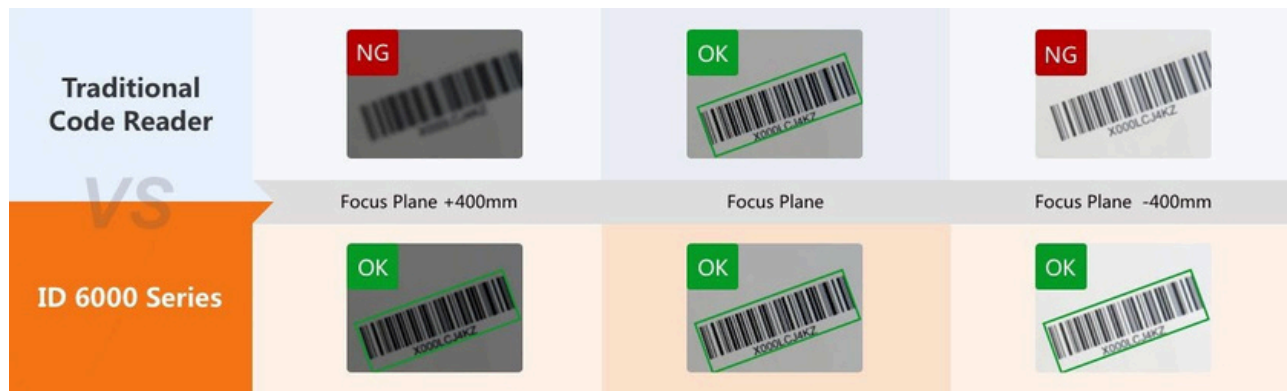
- Extra-wide field of view

Specifications

CE RoHS

| Model	Pixel size	Resolution	Max. frame rate	Max. reading speed	Data interface	Lens mount	Label
MV-ID6089M-00C-NNG	3.45 μm	4096 × 2160	30 fps	90 codes/sec	Gigabit Ethernet	C	A
MV-ID6120PM-00C-NNG	3.2 μm	4000 × 3000	28fps	84 codes/sec	Gigabit Ethernet	C	A
MV-ID6200EM-00C-NNG	2.4 μm	5440 × 3648	10 fps	30 codes/sec	Gigabit Ethernet	C	B
	2.4 μm	5440 × 3648	20 fps	60 codes/sec	Gigabit Ethernet	C	A
MV-ID6200M-00C-NNG	2.5 μm	5120 × 3968	20 fps	60 codes/sec	Gigabit Ethernet	C	A
MV-ID6200PM-00C-NNG							

Dimension

A   B   Unit:mm
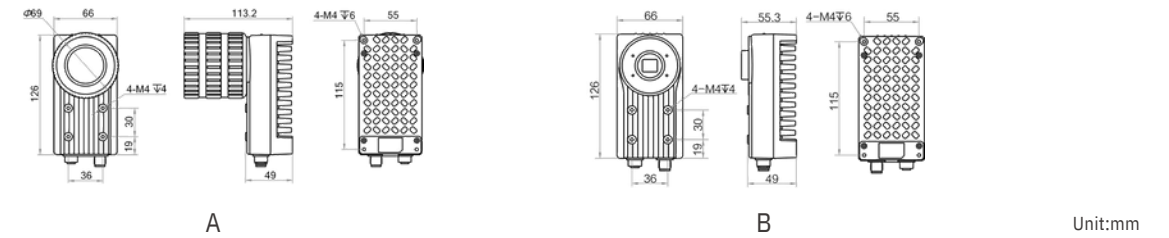
Accessories

Lens	10MP	12MP
6mm	MVL-HF0624M-10MP	——
8mm	MVL-HF0824M-10MP	MVL-KF0828M-12MP
12mm	MVL-HF1224M-10MP	MVL-KF1228M-12MP
16mm	MVL-HF1624M-10MP	MVL-KF1628M-12MP
20mm	MVL-KF2056M-10MP	——
25mm	MVL-HF2524M-10MP	MVL-KF2528M-12MP
35mm	MVL-HF3524M-10MP	MVL-KF3528M-12MP
50mm	MVL-HF5024M-10MP	MVL-KF5028M-12MP

Reading Light Source	Model
High power type	MV-LB-270-140-4030WL-A
High power type	MV-LB-230-230-4030WL-A

Controller	Model
VB2000 Series	MV-VB2100-120G
IPC2000 Series	MV-IPC-2302
	MV-IPC-2504
	MV-IPC-2504L
	MV-IPC-2504-2T
	MV-IPC-2504L-2T
	MV-IPC-2504-256G1T
	MV-IPC-2506

Cable	Power Line of Camera	Network Cable of Camera	Trigger Line of Light	Connecting Line of Camera Power Line
3m	MV-ACC-02-2201-03m	MV-ACC-02-1101-03m		
5m	MV-ACC-02-2201-05m	MV-ACC-02-1101-05m		
7m	MV-ACC-02-2201-07m	MV-ACC-02-1101-07m	MV-ACC-02-T-light-07m	MV-ACC-02-link-0.5m
10m	MV-ACC-02-2201-10m	MV-ACC-02-1101-10m		
15m	MV-ACC-02-2201-15m	MV-ACC-02-1101-15m		

ID7000 Series Smart Code Reader

Based on the embedded platform, ID7000 series is developed according to the application scenarios and needs of the bottom surface of the logistics industry. With 48 particles of LED light source and integrated structure design, ID7000 can realize an ultra-wide coverage.
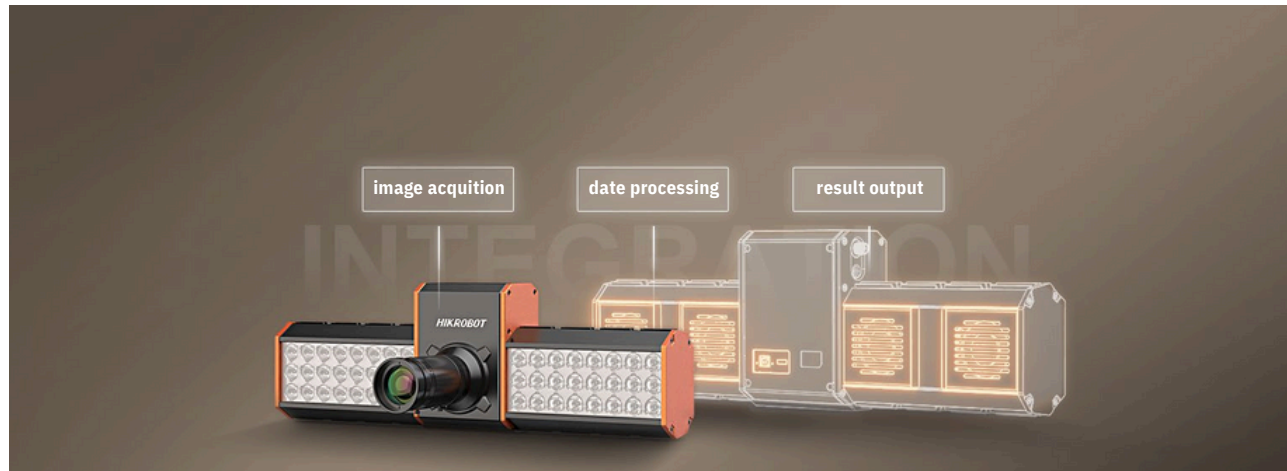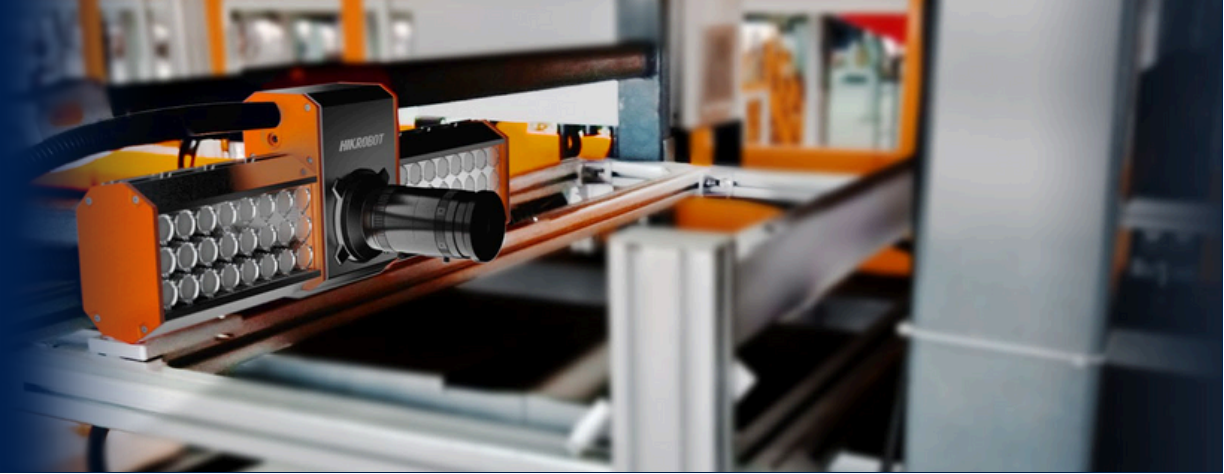
• Integrated design
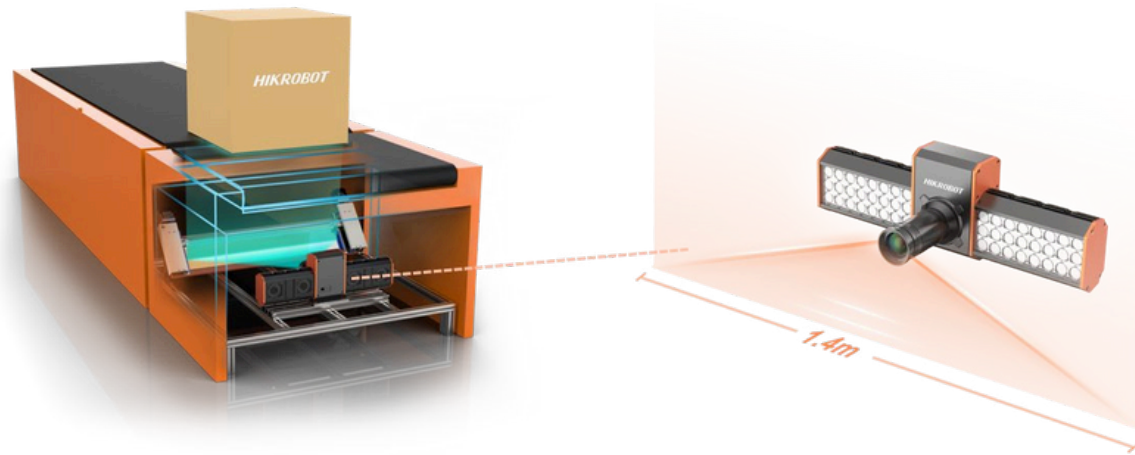
• Wide Coverage

Specifications

Model	Max. line frequency	Resolution	Data interface	Focal Length	Working distance	Field of view	Lens mount
MV-ID7080EM-35F-WHA	15 kHz	8K	Gigabit Ethernet	35 mm	1000 mm	1000 mm	F
MV-ID7080PM-35F-WHA	20 kHz	8K	Gigabit Ethernet	35 mm	1000 mm	1200 mm	F

Dimension
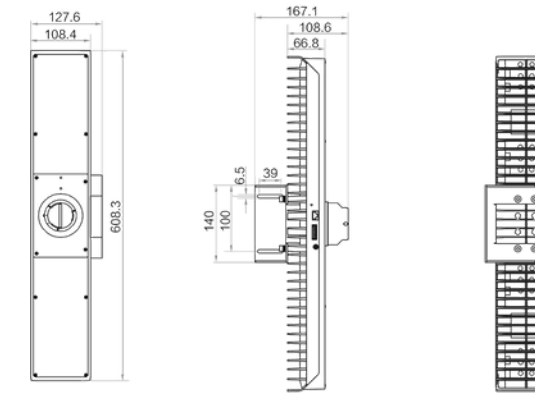
Unit:mm

Accessories

Mirror	Model
Mirror of Bottom	MV-ID7000-850mm-B
	MV-ID7000-1150mm-B
	MV-ID7000-550mm-B
	MV-ID7000-850mm-EB3.0

IDS Series Logistics Code Reader

As the core component of a code reading device, the product is divided into two categories: standard type and smart type. The product integrates the functions of image acquisition, data processing and result output. With its features of convenient use, excellent performance and rich supporting functions, it can be widely used in various types of code reading application scenarios.

• Flexible collocation and rapid deployment
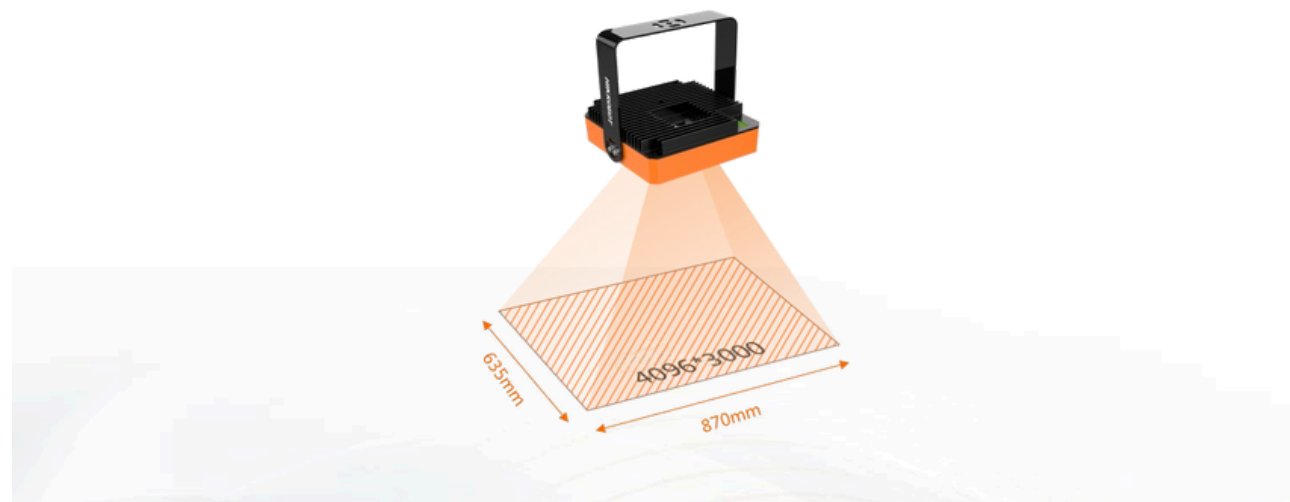
• Built-in embedded high performance processor

Specifications

Model	Type	Max. frame rate	Resolution	Focal Length	Working distance	Field of view	Depth of field	Label
MV-PD010003-06M-12C	Standard type	15 fps	3072 × 2048	12 mm	900 mm	550 mm × 340 mm	500 mm	A
MV-PD010003-12M-16C	Standard type	5.5 fps	4024 × 3036	16 mm	1550 mm	730 mm × 550 mm	650 mm	B
MV-IDS006M-12C-C	Smart type	20 fps	3072 × 2048	16 mm	1050 mm	650 mm × 440 mm	650 mm	A
MV-IDS012M-16C-C	Smart type	10 fps	4096 × 3000	12 mm	1870 mm	870 mm × 635 mm	700 mm	B
MV-IDS020M-20C-C	Smart type	10 fps	5440 × 3648	20 mm	1600 mm	1050 mm × 705 mm	650 mm	C

Dimension

A

B

C

Unit:mm

◼ IDH Series Handheld Smart Code Reader
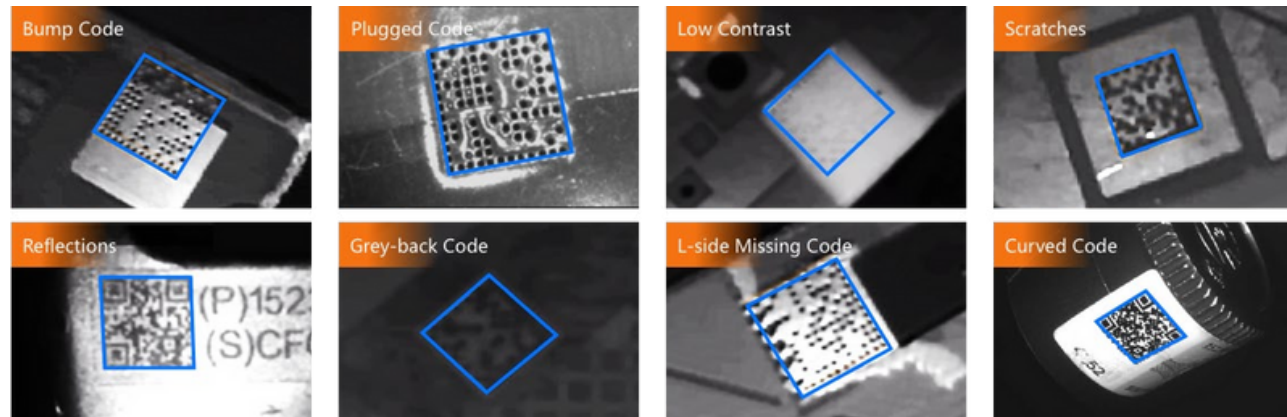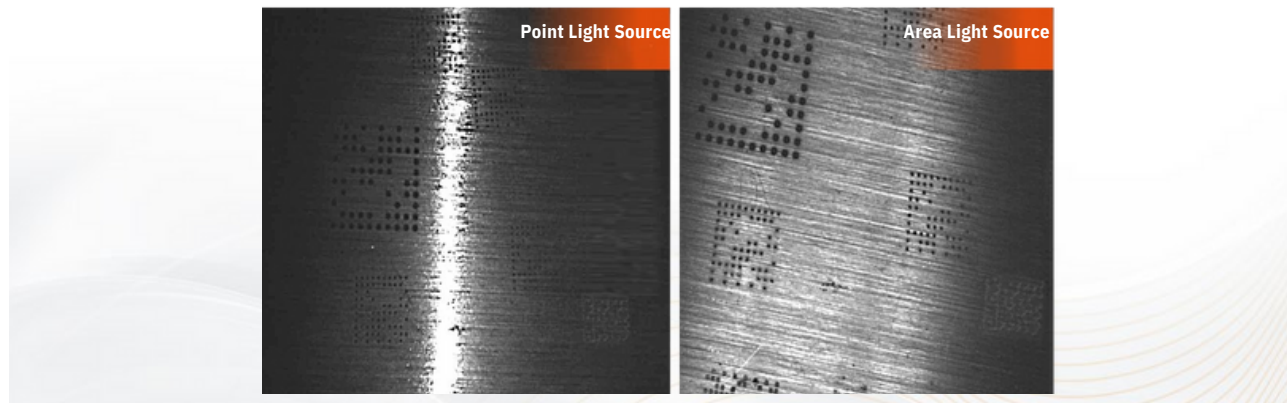
As a powerful handheld barcode scanner, the IDH series adopt a million-resolution global exposure sensor. With high-level protection, IDH has red/white fill light which can be automatically adjusted. Support USB/network port, simple and convenient to use.

| Bump Code | Plugged Code | Low Contrast | Scratches |
| Reflections | Grey-back Code | L-side Missing Code | Curved Code |

• Excellent DPM code identify function

| Point Light Source | Area Light Source |

• Multi-light source design, adapt to more scenes

Specifications

CE KC FC

Model	Resolution	Frame rate	Min. accuracy	Data interface	Max. power consumption	Focal length	Label
MV-IDH2003-03S-W2U	640 × 480	50 fps	4 mil	USB(HID,CDC),RS-232	2.5 W@5 VDC	3.1 mm	A
MV-IDH2003RF-03S-W2U	640 × 480	50 fps	4 mil	USB(HID,CDC),RS-232	2.5 W@5 VDC	3.1 mm	B
MV-IDH2013-05x-W1U	1280 × 1024	50 fps	S: 4 mil N: 3 mil	USB(HID,CDC),RS-232	2.5 W@5 VDC	4.9mm	A
MV-IDH2013B-05x-W1U	1280 × 1024	50 fps	S: 4 mil N: 3 mil	USB(HID,CDC),RS-232	2.5 W@5 VDC	4.9mm	A
MV-IDH3013-05x-R1L	1280 × 1024	50 fps	S: 4 mil N: 3 mil	Fast Ethernet, RS-232,DCterminal	1.8 W@12 VDC	4.7 mm	C

Model	Resolution	Frame rate	Min. accuracy	Data interface	Max. power consumption	Focal length	Label
MV-IDH3013-05x-R1U	1280 × 1024	50 fps	S: 4 mil N: 3 mil	USB2.0,DCterminal	1.8 W@12 VDC	4.7 mm	C
MV-IDH3013B-05x-R1	1280 × 1024	50 fps	S: 4 mil N: 3 mil	Fast Ethernet, RS-232,DCterminal	Standby mode: 0.8 W@ 3.8 VDC Working mode: 1.6 W@ 3.8 VDC Sleep mode: 0.6 W@ 3.8 VDC	4.7 mm	D
MV-IDH3013B-05x-R1L	1280 × 1024	50 fps	S: 4 mil N: 3 mil	Fast Ethernet, RS-232,DCterminal	Standby mode: 0.8 W@ 3.8 VDC Working mode: 1.6 W@ 3.8 VDC Sleep mode: 0.6 W@ 3.8 VDC	4.7 mm	D
MV-IDH3013B-05x-R1U	1280 × 1024	50 fps	S: 4 mil N: 3 mil	USB2.0,DCterminal	Standby mode: 0.8 W@ 3.8 VDC Working mode: 1.6 W@ 3.8 VDC Sleep mode: 0.6 W@ 3.8 VDC	4.7 mm	D
MV-IDH5010-05-xR-L	1280 × 800	50 fps	S: 4 mil N: 3 mil	Fast Ethernet,RS-232	Standby mode: 4.2 W@12 VDC Working mode: 4.2 W@12 VDC	5 mm	E
MV-IDH5010-05-xR-U	1280 × 800	50 fps	S: 4 mil N: 3 mil	USB3.0	Standby mode: 4.53 W@5 VDC 6 W@24 VDC	5 mm	E
MV-IDH7010P-07-xR-L	1280 × 800	50 fps	S: 4 mil N: 3 mil	Fast Ethernet, RS-232,DCterminal	6 W@24 VDC	6.7 mm	F
MV-IDH7010P-07-xR-U	1280 × 800	50 fps	S: 4 mil N: 3 mil	USB2.0,DCterminal	6 W@24 VDC	6.7 mm	F
MV-IDH7010P-07-xR-LP	1280 × 800	50 fps	S: 4 mil N: 3 mil	/	Standby mode: 1.1 W@ 3.8 VDC Working mode: 6.4 W@ 3.8 VDC Sleep mode: 0.8 W@ 3.8 VDC	6.7 mm	F
MV-IDH7010B-07-xR	1280 × 800	50 fps		/	Standby mode: 1.1 W@ 3.8 VDC Working mode: 6.4 W@ 3.8 VDC Sleep mode: 0.8 W@ 3.8 VDC	6.7 mm	G
MV-IDH7010B-07-xR-L	1280 × 800	50 fps	S: 4 mil N: 3 mil	/	Standby mode: 1.1 W@ 3.8 VDC Working mode: 6.4 W@ 3.8 VDC Sleep mode: 0.8 W@ 3.8 VDC	6.7 mm	H
MV-IDH7010B-07-xR-U	1280 × 800	50 fps	S: 4 mil N: 3 mil	/		6.7 mm	H

Notice: x=S denotes the standard focus, x=N denotes the near focus

Dimension

| 66.5 | 94 | 66.5 | 94 | 74.4 | 86.6 |

| 169.5 | 169.5 | 179.5 |

| 28.3 | 28.3 | 47.8 |

A   B   C

D

E

F

G

H

Unit:mm

Accessories

Power/ IO Cable	IDH2003	IDH2003B	IDH3013	IDH3013B	IDH7010	IDH7010B
2.5m	Optional cable configuration_USB, Black Optional cable configuration_ Serial, RS232, Black	Optional cable configuration_USB, Black, the base cable Optional cable configuration_Serial, RS232, Black, the base cable	Optional cable configuration_USB, 2.5m, Black, Spin Cover	Optional cable configuration_USB, 2.5m, Black	Optional cable configuration_USB, 2.5m, Black Optional cable configuration_USB, Black, the base cable Spring wire	Optional cable configuration_USB, Black, the base cable
3m			Optional cable configuration_ USB+Serial RS232, Ethernet, 3m, Black, 2.5m, Black, Spin Cover	Optional cable configuration_ USB+Serial RS232, Ethernet, 3m, Black, cable configuration_ the base cable	Optional cable configuration_ USB+Serial RS232, 3m, Black Optional cable configuration_ Ethernet+POE, 3m, Black (only for POE model)	Optional cable configuration_ Ethernet, Black, the base cable
5m	——	——	——	——	Optional cable configuration_ Ethernet+Serial RS232, Spring wire	——

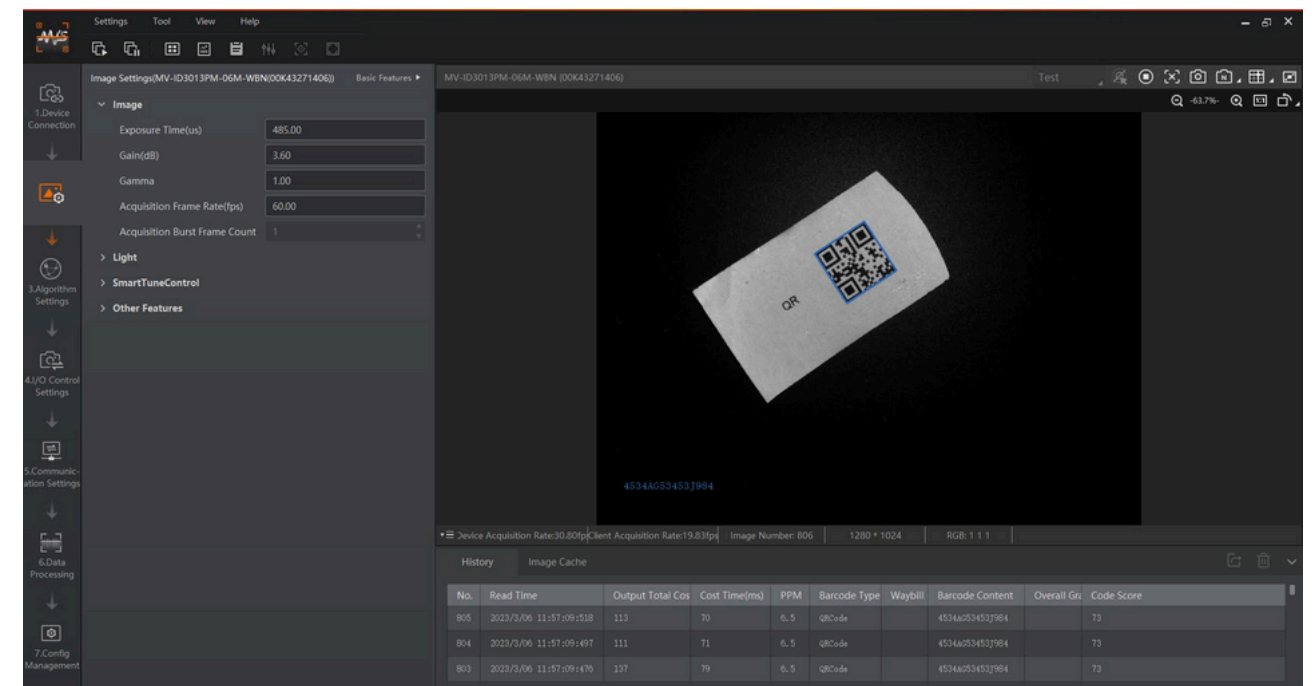| Bracket	Type
Handheld Scanner Bracket	Wall-mounted bracket
	Desktop stand

■ IDMVS Client

IDMVS client is an application software developed by Hikrobot exclusively for code reading cameras, which supports the debugging of all series of industrial code readers, handheld scanners, code reading modules and other code reading products. Through IDMVS, you can perform a series of debugging operations such as code reader focusing, parameter setting and establishing communication, etc. You can follow the seven-step guide bar on the left side of the software interface to complete the equipment setting and easily complete the preparation before the equipment comes online.
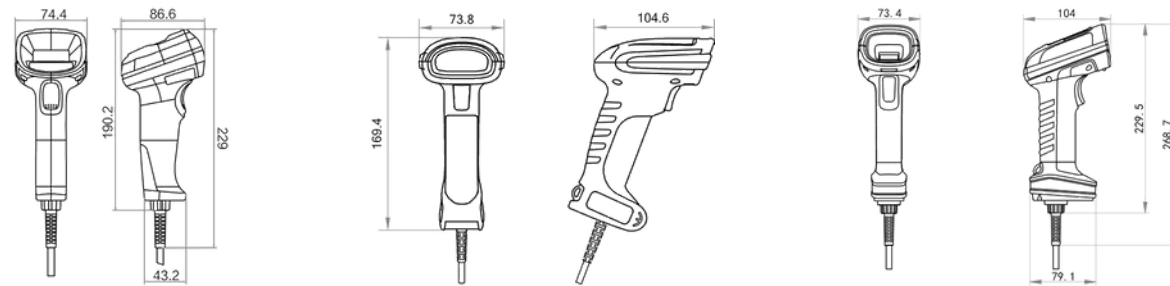
Key Features

- Directly connected to the code reader debugging, with interface operation for all code reading functions, easy to operate and start
- Real-time display of code reading effects for imaging optimization and debugging
- Integrated FTP client for direct local storage via FTP
- Provide SDK secondary development, support C, C++, C# development language
- Provide UI interface and other in-depth customization services to meet customer needs in all aspects
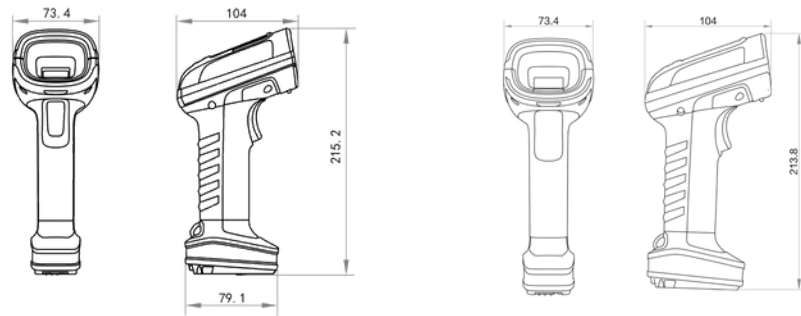

IDMVS

IDMVS client can be downloaded by visiting the website of Hikrobot.

https://www.hikrobotics.com/en/machinevision/service/download?module=0