SC SERIES MACHINE VISION SYSTEM SMART CAMERAS

All in One

# Introdution

Machine vision is widely used in food and beverage, cosmetics, pharmaceutical, building materials and chemical/metal processing, electronic manufacturing, packaging, automobile manufacturing and other industries. Currently, it is mainly based on PC solution, and supplemented by embedded vision solution (intelligent camera, X86 open platform). For automated factories, solutions featured with simple operation and convenient maintenance of equipment have become the mainstream trend.

Smart camera is a highly integrated micro machine vision system, which integrates image acquisition, storage, processing and communication functions into one, thus forming a multifunctional, modular, high reliability, easy to operate machine vision solution. At the same time, due to the continuous iteration and update of DSP and FPGA technologies, its intelligence degree is also continuously improved, which can meet the needs of more and more complex machine vision applications.
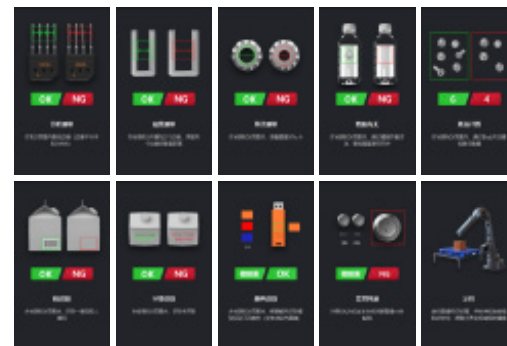
Performance

Rich algorithms, 30+ vision tools
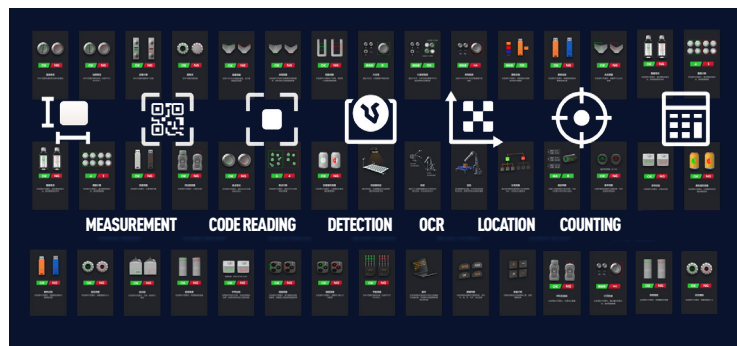
Automatically set brightness, focus and white balance
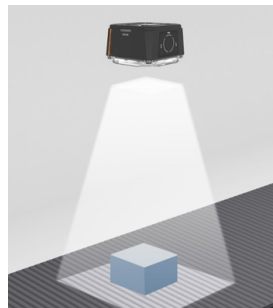
Vision Tools

Comprehensive Error-proofing Detection Algorithm

Inspection solutions such as presence/absence, U/D, Positioning, counting, etc. are often used for error-proof inspection. More visual inspection tools can provide the optimal solution for parts of different shapes on the production line, making visual application easier.

Multiple Accessories Available for Better Imaging

Red, blue, white and infrared light sources provide better imaging for products of different colors.

Visible light polarization mirror to filter glare interference.

Vertical and coaxial wiring supported, to adapt to more field applications.

Easy-to-use Software

The SCMVS software equipped for SC series cameras debugging shares a well-designed interface and useful vison tools, requiring less professionalism for engineers. It can also quickly filter suitable tools in the visualized display interface, and help to deploy real-time applications on site.
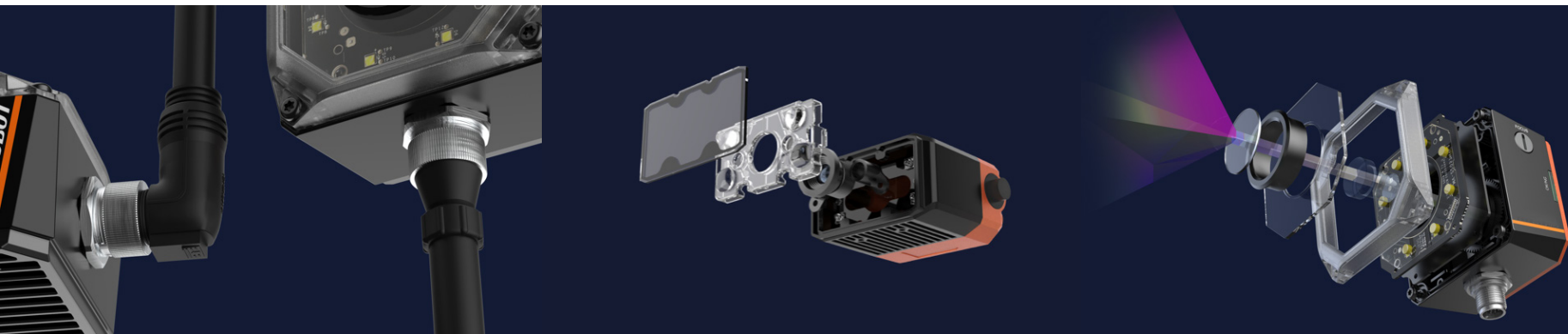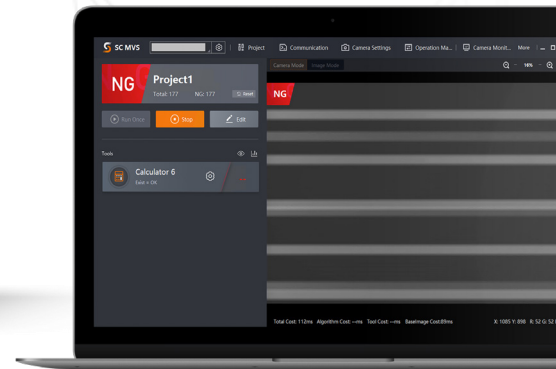
Automobile industry

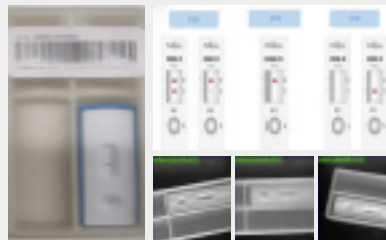Error prevention testing of parts

Weld inspection

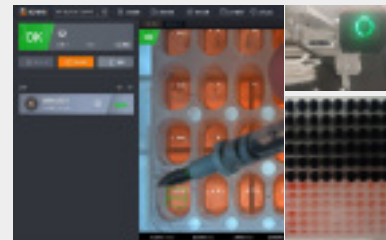Workpiece appearance defect detection

Medical industry

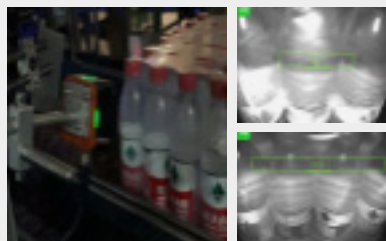Test tube code reading/size measurement
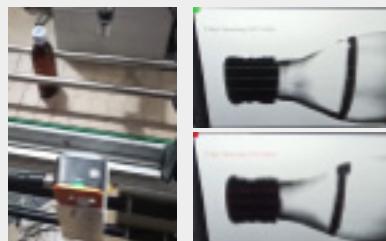

Detection of Covid-19 reagent results

Test tube color recognition

Packaging industry

Plastic packaging OCR

Liquid level detection

Pill box date character recognition

SC3000 Vision Sensors

Adopts built-in location and measurement algorithms to detect object's existence, location, dimension, etc.

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Mono/Color	Interface	Power consumption	Power supply	Lens Mount	EFL	Lens cap	Light source
SC3016M	1/2.9"	3.45 µm	1408 × 1024	60 fps	Mono	Fast Ethernet	48 W@24 VDC	24 VDC	M12-Mount	6/12/15 mm	Transparent; Half/ full polarization is optional	White/Red/Blue
SC3016C	1/2.9"	3.45 µm	1408 × 1024	60 fps	Color	Fast Ethernet	48 W@24 VDC	24 VDC	M12-Mount	6/12/15 mm	Transparent; Half/ full polarization is optional	White/Red/Blue
SC3050M	1/1.7"	3.2 µm	2368 × 1670	30 fps	Mono	Fast Ethernet	48 W@24 VDC	24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue

■ Available Vision Tools

Existence
Pattern existence/Spot existence/Edge existence/Circle existence/Line existence

Recognition
OCR/Barcode recognition/Color comparison (For color model only)

Count
Pattern count/Spot count/Edge count

Measurement
Brightness analysis/Contrast measurement/Greyscale size/Diameter measurement/Width measurement/Line angle/Line to line angle/Point to line measurement
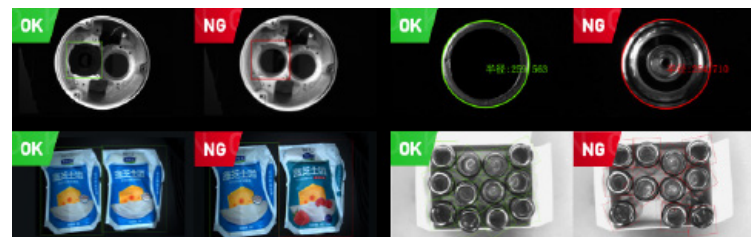
Integrated 30+ error-proof detection algorithms and AI recognition algorithms. With easy-to-use SCMVS, it can cover most equipment production quality inspection and other applications.

It can provide the best imaging effect with changable lens, light source, protective cover and other components.
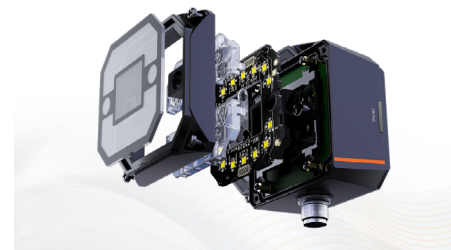
Dimension

65.2 | 47 | 4- M4 ▽4
65.2 | 25.9 | 37

Accessories

Power&I/O cable	Standard	High flex	Bending
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	-	-
10m	MV-IDA-PE-M12A17pF-opensRJ45DB9-ST-10m	-	-

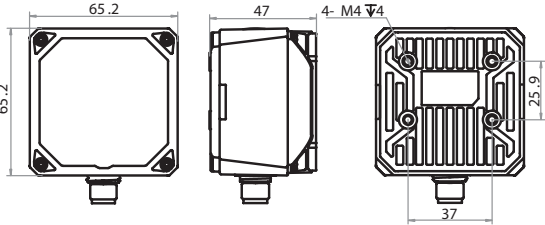| GigE Cable	Standard	High flex	Bending
1m	MV-ACG-RJ45s-RJ45-ST-1m	-	-
3m	MV-ACG-RJ45s-RJ45-ST-3m	MV-ACG-RJ45s-RJ45-HF-3m	MV-ACG-RJ45s(up)-RJ45-ST-3m
5m	MV-ACG-RJ45s-RJ45-ST-5m	MV-ACG-RJ45s-RJ45-HF-5m	MV-ACG-RJ45s(up)-RJ45-ST-5m
7m	MV-ACG-RJ45s-RJ45-ST-7m	MV-ACG-RJ45s-RJ45-HF-7m	-
10m	MV-ACG-RJ45s-RJ45-ST-10m	MV-ACG-RJ45s-RJ45-HF-10m	-
15	MV-ACG-RJ45s-RJ45-ST-15m	MV-ACG-RJ45s-RJ45-HF-15m	MV-ACG-RJ45s(up)-RJ45-ST-15m
30	MV-ACG-RJ45s-RJ45-ST-30m	MV-ACG-RJ45s-RJ45-HF-30m	

Lens Cover	Model No.
Transparent	MV-SC3000-C-NN
Half polarization	MV-SC3000-C-HP
full polarization	MV-SC3000-C-FP
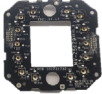
Light board	Model No.
White	MV-SC3000-L-WB
Blue	MV-SC3000-L-BB
Red	MV-SC3000-L-RB
NIR	MV-SC3000-L-IB

Lens	SC3016	SC3050
6mm	BTY0640-MP	-
8mm	-	BHYB0856-12S
12mm	BTS1240-MP	BHP1256-12S
15mm	BTS1540-01S	-
16mm	-	BHP1656-12S

Display	Model No.
Extention box	MV-SV100
	MV-SV400
Touch Screen	MV-VT1010-008G50

Mount bracket	Model No.
Standard	V020

SC5000 Vision Sensors

SC5000 smart camera has maintaining a high degree of hardware integration, algorithms such as positioning, measurement, calibration conversion, logic control, defect detection, OCR and code reading.

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Mono/Color	Interface	Power consumption	Power supply	Lens Mount	EFL	Lens cap	Light source	Dimension
SC5016M	1/2.9"	3.45 μm	1408 × 1024	60 fps	Mono	GigE	60 W@24 VDC	12~24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC5016C	1/2.9"	3.45 μm	1408 × 1024	60 fps	Color	GigE	60 W@24 VDC	12~24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC5050M	1/1.7"	3.2 μm	2368 × 1760	40 fps	Mono	GigE	60 W@24 VDC	12~24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC5060M	1/1.8"	2.4 μm	3072 × 2048	30 fps	Mono	GigE	60 W@24 VDC	12~24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC5060M-00C-NNN	1/1.8"	2.4 μm	3072 × 2048	30 fps	Mono	GigE	12 W@24 VDC	12~24 VDC	C-Mount	/	Transparent	No light	B
SC5120M-00C-NNN	1"	3.2 μm	4096 × 3072	24 fps	Mono	GigE	12 W@24 VDC	12~24 VDC	C-Mount	/	Transparent	No light	B
SC5200M-00C-NNN	1"	2.4 μm	5440 × 3648	20 fps	Mono	GigE	12 W@24 VDC	12~24 VDC	C-Mount	/	Transparent	No light	B

Available Vision Tools

Existence
Pattern existence, spot existence, edge existence, circle existence, line existence

Count
Pattern count, spot count, edge count

Defect detection
Exception detection

Recognition
OCR, code recognition
For color model only: Color recognition, color contrast

Location
Match location, match calibration

Measurement
L2L angle, diameter measurement, brightness analysis, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement
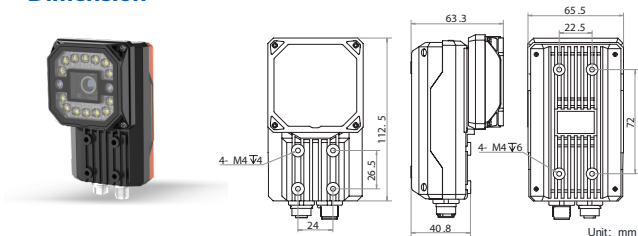
Logic tool
If module, condition judge, logic judge, combination judge, character comparison, calculator
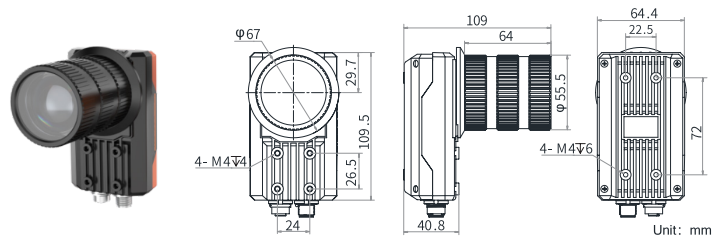

The resolution covers 1.6MP to 20MP, achieving ultra-high precision and ultra-large visual field coverage, providing high-quality images for machine vision applications.
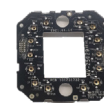
Dimension

63.3 65.5 22.5 112.5 72 4- M4▽4 4- M4▽6 26.5 24 40.8 Unit: mm

A

Φ67 109 64 64.4 22.5 29.7 109.5 Φ55.5 72 4- M4▽4 4- M4▽6 26.5 24 40.8 Unit: mm

B

Accessories

GigE Cable	Standard	High flex
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
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&I/O cable	Standard	High flex	Bending
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-5m
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	-	-

Lens Cover	Model No.
Transparent	MV-SC3000-C-NN
Half polarization	MV-SC3000-C-HP
full polarization	MV-SC3000-C-FP

Light board	Model No.
White	MV-SC3000-L-WB
Blue	MV-SC3000-L-BB
Red	MV-SC3000-L-RB
NIR	MV-SC3000-L-IB

Lens	M12 Lens Mount	C Mount With Lens cap	C Mount Without Lens cap
6mm	BHYB0856-12S	C-Mount lenses with dimension smaller than Φ48 mm × 62 mm	All C-Mount Lenses
12mm	BHP1256-12S		
16mm	BHP1656-12S		

Display	Model No.
Extention box	MV-SV100
	MV-SV400
Touch Screen	MV-VT1010-008G50

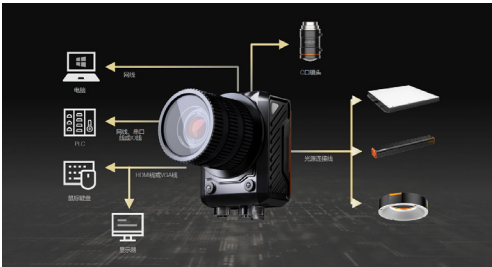| Mount bracket	Model No.
Standard	V024

SC6000 Vision Sensors

SC6000 series smart camera is developed based on high-performance embedded processor, powerful hardware performance and fully functional VisionMaster algorithm software, which can meet the requirements of visual positioning, size measurement, defect detection, information recognition and other machine vision applications. Highly integrated product form brings more choices for intelligent manufacturing.

With built-in more than 140 visual tools, a variety of deep learning algorithms and graphic interaction, it can greatly improve the flexibility of smart camera, while maintaining its high usability. It is suitable for all kinds of complex visual detection applications.
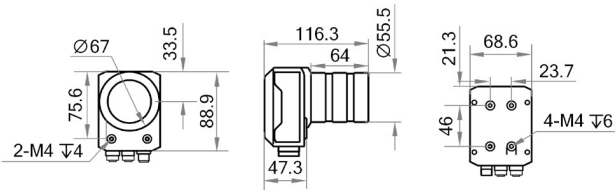
While maintaining a high degree of hardware integration, it supports different combination of C-Mount lens, light source, and display, improving the application flexibility of smart camera and the ability to cope with complex scenes.

Dimension

Accessories

GigE Cable	Standard	High flex
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
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	C Mount With Lens cap	C Mount Without Lens cap
Model	C-Mount lenses with dimension smaller than Φ48 mm × 62 mm	All C-Mount Lenses

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Mono/Color	Lens Mount	Vision Software
SC6016M-00C-NNN	1/2.9"	3.45 µm	1408 × 1024	60 fps	Mono	C-Mount	VisionMaster(With Deep Learning)
SC6016C-00C-NNN	1/2.9"	3.45 µm	1408 × 1024	60 fps	Color	C-Mount	VisionMaster(With Deep Learning)
SC6050M-00C-NNN	1/1.7"	3.2 µm	2592 × 2048	40 fps	Mono	C-Mount	VisionMaster(With Deep Learning)
SC6050C-00C-NNN	1/1.7"	3.2 µm	2592 × 2048	40 fps	Color	C-Mount	VisionMaster(With Deep Learning)

SC7000Pro Vision Sensors

SC7000Pro smart camera is embedded with high-performance AI platform. Combined with traditional algorithms and AI algorithms, it can provide powerful help for complex and diverse detection scenarios such as defect detection, classification, OCR and positioning, .etc.

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Mono/Color	Interface	Power consumption	Power supply	Lens Mount	EFL	Lens cap	Light source	Dimension
SC7016PM	1/2.9"	3.45 µm	1408 × 1024	60 fps	Mono	GigE	46 W@24 VDC	24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White	A
SC7016PC	1/2.9"	3.45 µm	1408 × 1024	60 fps	Color	GigE	46 W@24 VDC	24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White	A
SC7050PM	1/1.7"	3.2 µm	2368 × 1760	40 fps	Mono	GigE	46 W@24 VDC	24 VDC	M12-Mount	8/12/16 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC7060PM	1/1.8"	2.4 µm	3072 × 2048	30 fps	Mono	GigE	20 W@24 VDC	24 VDC	M12-Mount	8/12 mm	Transparent; Half/ full polarization is optional	White/Red/Blue/NIR	A
SC7060PM-00C-NNN	1/1.8"	2.4 µm	3072 × 2048	30 fps	Mono	GigE	7.5 W@24 VDC	24 VDC	C-Mount	/	Transparent	No light	B
SC7120PM-00C-NNN	1"	3.2 µm	4096 × 3072	24 fps	Mono	GigE	7.5 W@24 VDC	24 VDC	C-Mount	/	Transparent	No light	B
SC7200PM-00C-NNN	1"	2.4 µm	5440 × 3648	20 fps	Mono	GigE	7.5 W@24 VDC	24 VDC	C-Mount	/	Transparent	No light	B

Available Vision Tools

Existence
Pattern existence, spot existence, edge existence, circle existence, line existence

Count
Pattern count, spot count, edge count

Defect detection
Exception detection

Recognition
OCR, code recognition
For color model only: Color recognition, color contrast

Location
Match location, match calibration

Measurement
L2L angle, diameter measurement, brightness analysis, contrast measurement, width measurement, P2L measurement, greyscale size, line angle, edge width measurement

Logic tool
If module, condition judge, logic judge, combination judge, character comparison, calculator
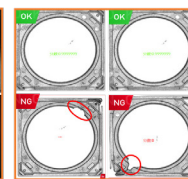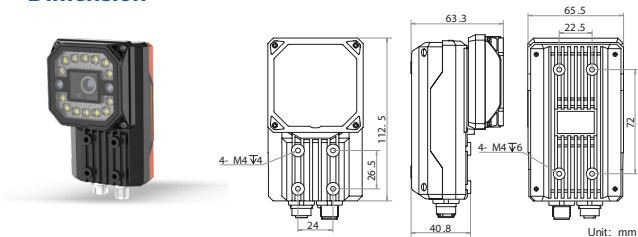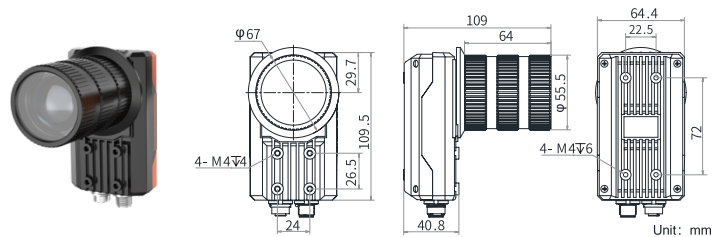

OCR

Target counting

Classification

Defects detection

With the powerful hardware processing sensor, the deep learning algorithms of SC7000Pro series are featured with high detection accuracy, strong compatibility and simple deployment.
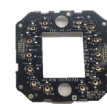
Dimension

A

Unit: mm

B

Unit: mm

Accessories

GigE Cable	Standard	High flex
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
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&I/O cable	Standard	High flex	Bending
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-5m
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	-	-

Lens Cover	Model No.
Transparent	MV-SC3000-C-NN
Half polarization	MV-SC3000-C-HP
full polarization	MV-SC3000-C-FP

Light board	Model No.
White	MV-SC3000-L-WB
Blue	MV-SC3000-L-BB
Red	MV-SC3000-L-RB
NIR	MV-SC3000-L-IB

Lens	M12 Lens Mount	C Mount With Lens cap	C Mount Without Lens cap
6mm	BHYB0856-12S	C-Mount lenses with dimension smaller than Φ48 mm × 62 mm	All C-Mount Lenses
12mm	BHP1256-12S		
16mm	BHP1656-12S		

| Display	Model No.
Extention box	MV-SV100
	MV-SV400
Touch Screen	MV-VT1010-008G50

| Mount bracket	Model No.
Standard	V024

SCMVS Client Software for SC series Cameras

SCMVS client is an application software which is speically designed for SC series smart cameras. It supports vision detection of images acquired by the device in real time or imported into the device. Users can edit, manage and save the projects on the camera. It can meet the requirements of various machine vision applications such as positioning, measurement, recognition and deep learning applications.

Features

- Supports multi-platform operation and is compatible with Windows7/10 32/64 bit operating system
- Simple interaction, guided process configuration mode, only four steps to build a vision project
- Support interface data statistics and multi-camera operation monitoring
- Supports I/O, communication, time calibration, firmware upgrade, password and other settings
- Supports one-click setting of camera parameters and automatically adjusts brightness, focus and white balance
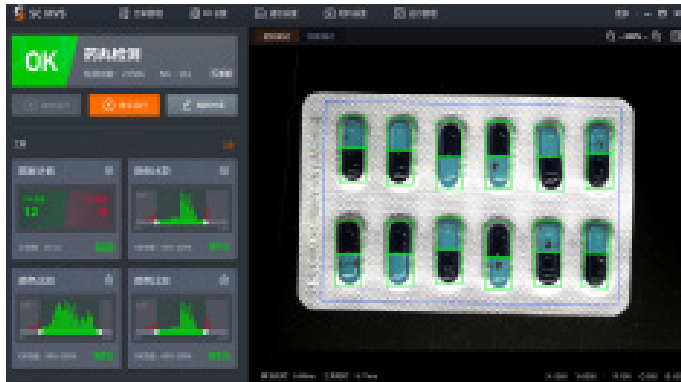
Data statistics interface
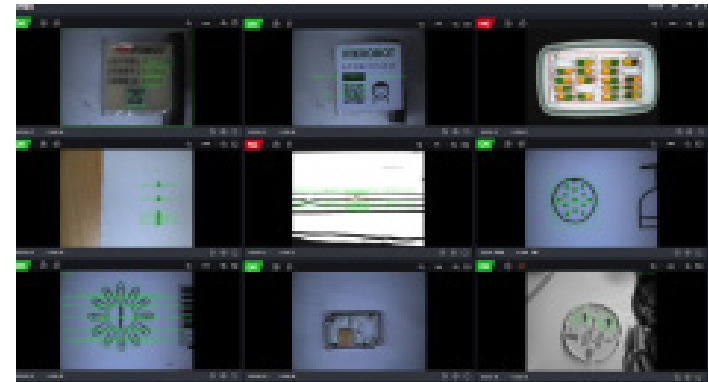
Operation monitoring interface

* Download link: http://81.69.171.100:7701/SCMVS/ (acc.: general Password: A705540EC1)

X86 Open Platform

With a built-in high-performance X86 structural chip and pre-installed Windows system, X86 Open Platform is compatible with applications based on Windows system and supports user-defined visual detection processes and software.
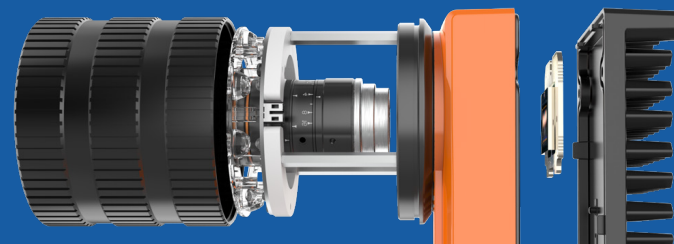
Model	Sensor	Pixel size	Sensor size	Resolution	Max. frame rate	Mono/Color	Interface	Power consumption	Power supply	Lens Mount	Lens cap	Light source	CPU	Operating system
SI608-38GM	PYTHON1300	4.8 μm	1/2"	1280 × 1024	80 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI608-38GC	PYTHON1300	4.8 μm	1/2"	1280 × 1024	80 fps	Color	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI618-08GM	PYTHON2000	4.8 μm	2/3"	1920 × 1200	50 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI628-38GM	PYTHON5000	4.8 μm	1"	2592 × 2048	30 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI628-38GC	PYTHON5000	4.8 μm	1"	2592 × 2048	30 fps	Color	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI638-08GM	IMX178	2.4 μm	1/1.8"	3072 × 2048	30 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI638-08GC	IMX178	2.4 μm	1/1.8"	3072 × 2048	30 fps	Color	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI648-08GM	IMX267	3.45 μm	1"	4096 × 2160	14 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit
SI668-07GM	IMX183	2.4 μm	1"	5427 × 3648	10 fps	Mono	GigE	24 W@24 VDC	12~24 VDC	C-Mount	No	No	Intel® E3845	Win10 64bit
SI668-08GM	IMX183	2.4 μm	1"	5427 × 3648	10 fps	Mono	GigE	34 W@24 VDC	12~24 VDC	C-Mount	Transparent	White	Intel® E3845	Win10 64bit

Dimension
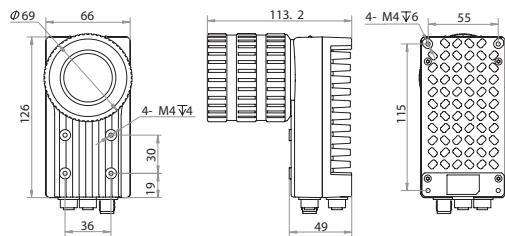
MAXIMUM

20MP

RESOLUTION

ABUNDANT

ALGORITHMS

CLOSE TO

100%

CODE READING ACCURACY

HIGH

ms

CODE READING SPEED

LOW

μm

FEATURE SIZE

SMART CODE READERS

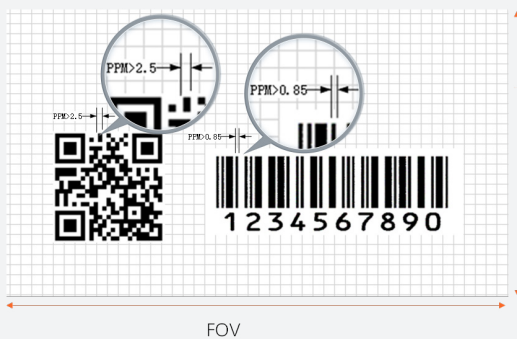SUITABLE FOR MULTIPLE

INDUSTRIES

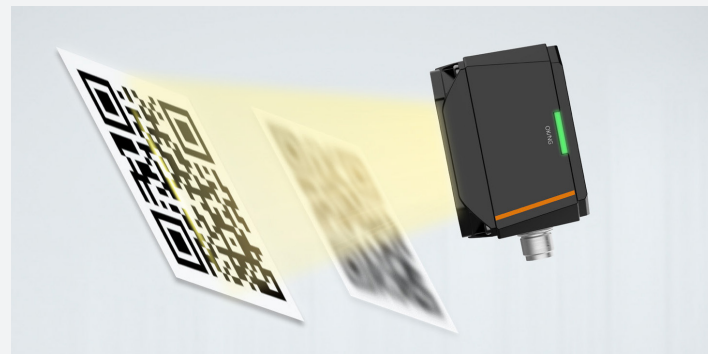丰富的场景案例
ABUNDANT APPLICATON CASES

PPM requirement of 1D code is 0.85+, and PPM requirement of 2D code is 2.5+.

FOV

Support code rating

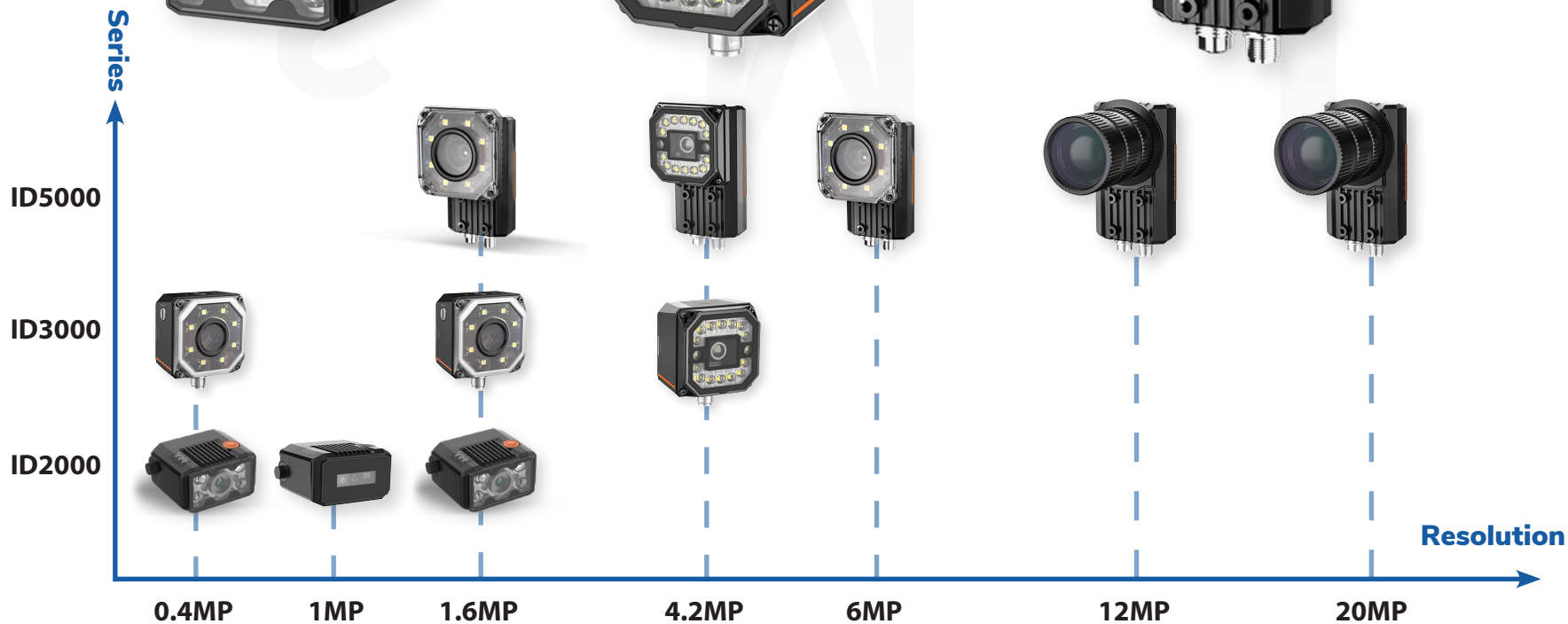Support auto focus, one key parameter adjustment
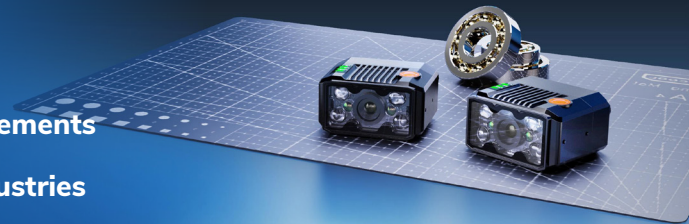
ID2000 Series

ID3000 Series

ID5000 Series

S **M** **L**

Series

ID5000

ID3000

ID2000

Resolution

| 0.4MP | 1MP | 1.6MP | 4.2MP | 6MP | 12MP | 20MP |

ID2000 Series Code Readers

- **Ultral-small size, easy to integrate**
- **Multiple types for different requirements**
- **Suitable for different code reading applications , including 3C and FPD industries**

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Max. reading speed	Software	Interface	Power consumption	Power supply	EFL	Working distance	Light source	Aiming system
ID2004M-06S-xBN	1/2.9"	6.9 μm	704 × 540	60 fps	41 codes/sec	IDMVS	Fast Ethernet	10.6 W@24 VDC	12 ~ 24 VDC	6.72 mm	40~120 mm manual focus	White/Red/Blue	Green LED
ID2004M-06S-xBN-U	1/2.9"	6.9 μm	704 × 540	60 fps	38 codes/sec	IDMVS	USB 2.0	4.6 W@5 VDC	5 VDC,USB2.0	6.72 mm	40~120 mm manual focus	White/Red/Blue	Green LED
ID2004M-16T	1/2.9"	6.9 μm	704 × 540	60 fps	45 codes/sec	IDMVS	Fast Ethernet	11 W@12 VDC	12~24 VDC	16 mm	100 ~ 400 mm Auto Focus	Red	Orange LED
ID2010M-05M-WLR	1/4"	3 μm	1280 × 800	50 fps	34 codes/sec	IDMVS	Fast Ethernet	6.24 W@24 VDC	12~24 VDC	5 mm	110 mm	White	Cross laser
ID2010M-05M-WLR-U	1/4"	3 μm	1280 × 800	50 fps	32 codes/sec	IDMVS	USB 2.0	4.4 W@5 VDC	5 VDC,USB2.0	5 mm	110 mm	White	Cross laser
ID2013M-06S	1/2.7"	4 μm	1280 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	10.6 W@24 VDC	12~24 VDC	6.72 mm	40~120 mm manual focus	White/Red/Blue	Green LED
ID2013M-16S-RBN	1/2.7"	4 μm	1280 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	24 W@12 VDC	12~24 VDC	16 mm	105~150 mm manual focus	Red	/
ID2013M-25S-RBN	1/2.7"	4 μm	1280 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	24 W@12 VDC	12~24 VDC	25 mm	170~200 mm manual focus	Red	/
ID2013EM-05-xBy	1/4"	2.7 μm	1280 × 1024	50 fps	30 codes/sec	IDMVS	Fast Ethernet	2.5 W@24 VDC	12~24 VDC	4.7 mm	/	White/Red	Green LED
ID2013EM-05-xBy-U	1/4"	2.7 μm	1280 × 1024	50 fps	30 codes/sec	IDMVS	USB 2.0	2.5 W@5 VDC	5 V,USB2.0	4.7 mm	/	White/Red	Green LED
ID2016M-06S-xBN	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	10.6 W@24 VDC	12~24 VDC	6.72 mm	40~120 mm manual focus	White/Red/Blue	Green LED
ID2016M-06S-xBN-U	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	USB 2.0	4.6 W@5 VDC	5 V,USB2.0	6.72 mm	40~120 mm manual focus	White/Red/Blue	Green LED
ID2016M-16T	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	11 W@12 VDC	12~24 VDC	16 mm	100 ~ 400 mm Auto Focus	Red	Orange LED
ID2016M-16S-RBN	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	24 W@12 VDC	12~24 VDC	16 mm	105 ~ 150 mm	Red	/
ID2016M-25S-RBN	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	24 W@12 VDC	12~24 VDC	25 mm	170 ~ 200 mm	Red	/
ID2016M-00C-NNN	1/2.9"	3.45 μm	1408 × 1024	60 fps	45 codes/sec	IDMVS	Fast Ethernet	6 W@12 VDC	12~24 VDC	/	/	/	/

ID2010M

1MP, 5mm EFL
White/Red light

ID2004M-S/T
ID2016M-S/T

0.4/1.6MP, 6 mm EFL, External focus knob
T series support Auto-focus

ID2013EM

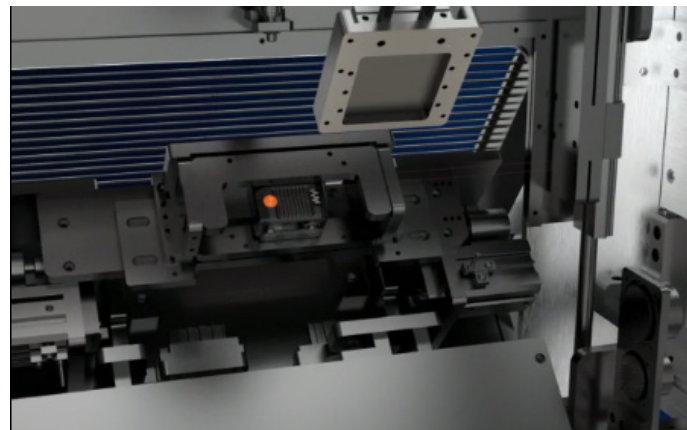1.3MP, 5 mm EFL
White/Red light

ID2016M | long EFL type

1.6MP, 16/25mm, Red light
External focus knob

ID2016M | C-Mount type

1.6MP, C-Mount for different lenses

With ultra-compact size, it can be installed in a small space, and perfectly integrated into miniaturized or existing automation machine equipments.

Accessories

Power&I/O cable	Standard	High flex	Compatibility
2m	MV-IDA-PE-M12A17pFopensU2DB9-ST-2m	MV-IDA-PE-M12A17pFopensU2DB9-HF-2m	For ID2000 USB model
3m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-3m	MV-IDA-PE-M12A17pFopensRJ45DB9-HF-3m	For ID2000 ethernet model
5m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-5m	External open_ID2000 composite function_ flex 5m,5m, black	For ID2000 ethernet model
10m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-10m	-	For ID2000 ethernet model
2m	External cable_ID2013E ,HDB15M to USB2.0	-	For ID2000 USB model
2.5m	MV-ACP-DB9-USB2.0-ST-2.5m	-	For ID2000 USB model
3.5m	External cable_ID2013E	-	For ID2000 ethernet model

I/O box	Model No.
For ID2000M	MV-IDA-IO-33
For ID2000EM	MV-IDA-IO-22

Mount bracket	Model No.
Standard	V035

ID3000 Series Code Readers

- **Compact size and external focus knob, easy to install and adjust**
- **Replaceable light source and lens cap**
- **One cable solution for power, I/O, ethernet, serial port**

| Model	Sensor size	Pixel size	Resolution	Max. frame rate	Max. reading speed	Software	Interface	Power supply	Power consumption	EFL	Lens Mount	Focus	Lens Cap	Light source
ID3013PM	1/2.7"	4 µm	1280 × 1024	60 fps	84 codes/sec	IDMVS	Fast Ethernet	24 VDC	20 W@24 VDC	6/12/14.8 mm	M12-Mount	Mechanical	Half polarization; Transparent and full polarization is optional	White/Red/Blue/IR
ID3016PM	1/2.9"	3.45 µm	1408 × 1024	60 fps	84 codes/sec	IDMVS	Fast Ethernet	24 VDC	20 W@24 VDC	6/12/14.8 mm	M12-Mount	Manual/Mechanical	Transparent; polarization is optional	White/Red/Blue/IR
ID3050PM	1/1.7"	3.2 µm	2368 × 1760	30 fps	60 codes/sec	IDMVS	Fast Ethernet	24 VDC	47.5 W@24 VDC	8/12/16/25 mm	M12-Mount	Mechanical	Half polarization; Transparent and full polarization is optional	White/Red/Blue/IR

ID3016

1.3MP, with light source, M12 Mount, Manual/ Mechanical focucs
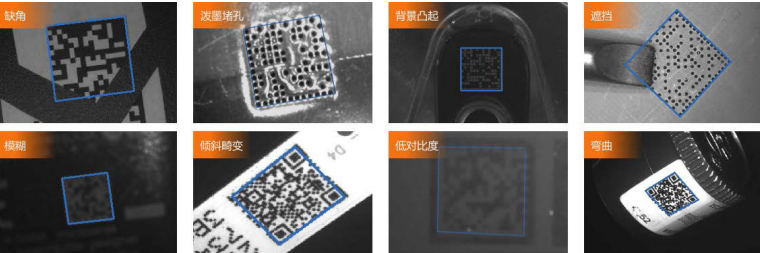
ID3013/ID3050PM

*4.2MP, Polarization lens cap, Mechanical focus*
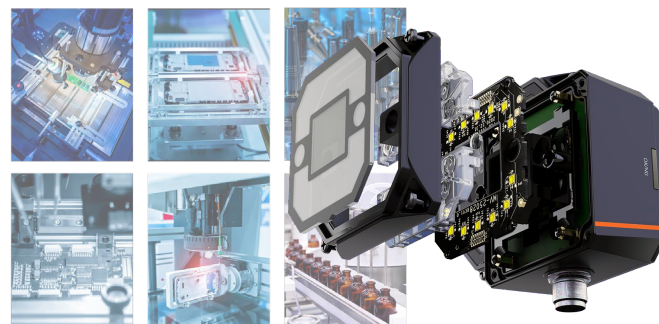
Featured with high speed recognition efficiency, it has stable recognition ability for label paper and DPM bar codes of different materials, and efficiently and stably read difficult codes such as information loss, low contrast, distortion and etc..

With abundunt choices of light sources, lenses and other modules, it can ensure the optimal image lighting effect and adapt to different working distance and field of vision requirements
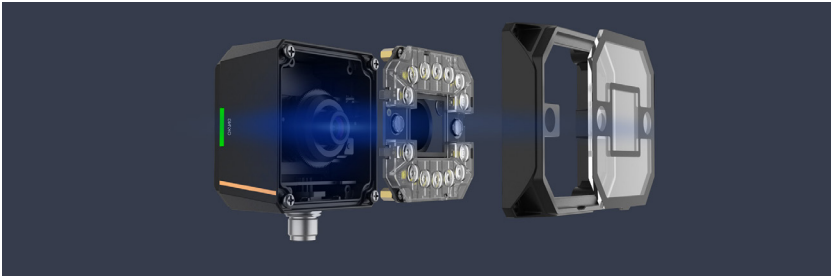
Accessories

Power&I/O cable	Standard	High flex/Super flex	Bending
3m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-3m	MV-IDA-PE-M12A17pFopensRJ45DB9-HF-3m	MV-ACPE-M12A17F(back)-OPEN/RJ45-FL-3m
5m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-5m	MV-ACPE-M12A17F-OPEN/RJ45-FL-5m	-
10m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-10m	MV-ACPE-M12A17F-OPEN/RJ45-FL-10m	-
15m	MV-IDA-PE-M12A17pFopensRJ45DB9-ST-15m	MV-ACP-M12A17pFTB8pRJ45DB9F-SF-15m	-

Lens	ID3013/ID3016	ID3050
6mm	BTY0640-MP	-
8mm	-	BHYB0856-12S
12mm	BTS1240-MP	BHP1256-12S
14.8mm	BTS1540-MP	-
16mm	-	BHP1656-12S
25mm	-	BHP2556-12S

Lens cap	ID3013/ID3050	ID3016
Transparent	✅	✅
Half polarization	✅	-
Full polarization	✅	✅

I/O box	Model No.
Standard	MV-IDA-IO-33

Mount bracket	Model No.
Standard	V020

ID5000 Series Code Readers

- **Large FOV with high resolution up to 20MP**
- **High performance with max. code reading speed up to 90 codes/sec.**
- **High flexibility, optional with C-Mount lens**

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Max. reading speed	Software	Interface	Power supply	Power consumption	EFL	Lens Mount	Light source	Lens Cap
ID5030M-xxS-WBN	1/2"	2.5 μm	2048 × 1536	60 fps	90codes/sec	IDMVS	GigE	24 VDC	60 W@24 VDC	8/12/15/25 mm	M12-Mount	White/Red/Blue/IR	Half polarization; Transparent and full polarization is optional
ID5050M-xxS-WBN	1/1.7"	3.2 μm	2368 × 1760	40 fps	90codes/sec	IDMVS	GigE	24 VDC	60 W@24 VDC	8/12/15/25 mm	M12-Mount	White/Red/Blue/IR	Half polarization; Transparent and full polarization is optional
ID5060M-xxS-WBN	1/1.8"	2.4 μm	3072 × 2048	30 fps	90 codes/sec	IDMVS	GigE	24 VDC	20 W@24 VDC	8/12/15/25 mm	M12-Mount	White/Red/Blue/IR	Transparent; polarization is optional
ID5060M-00C-WBN	1/1.8"	2.4 μm	3072 × 2048	30 fps	90 codes/sec	IDMVS	GigE	24 VDC	20 W@24 VDC	/	C-Mount	White/Red/Blue/IR	Transparent; polarization is optional
ID5060M-00C-NNN	1/1.8"	2.4 μm	3072 × 2048	30 fps	90 codes/sec	IDMVS	GigE	24 VDC	20 W@24 VDC	/	C-Mount	Without light	Transparent
ID5120M-00C-NNN	1"	3.2 μm	4096 × 3072	28 fps	84 codes/sec	IDMVS	GigE	12 ~24 VDC	12 W@24 VDC	/	C-Mount	Without light	Transparent
ID5200M-00C-NNN	1"	2.4 μm	5440 × 3648	20 fps	36 codes/sec	IDMVS	GigE	12 ~24 VDC	12 W@24 VDC	/	C-Mount	Without light	Transparent; polarization is optional
ID5200PM-00C-NNN	1.1"	2.5μm	5120 × 3968	20 fps	36 codes/sec	IDMVS	GigE	12 ~24 VDC	12 W@24 VDC	/	C-Mount	Without light	Transparent

ID5060

1.6/6.0MP, M12 /C-Mount, with/without light source
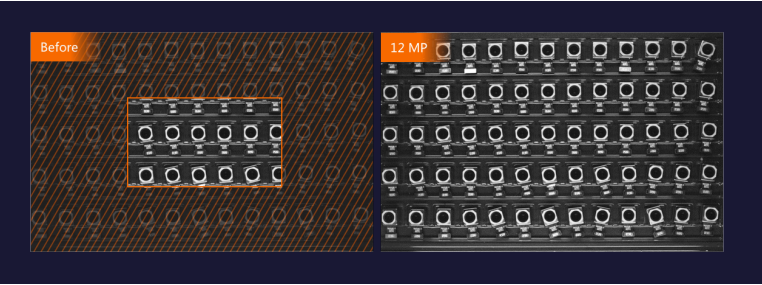
ID5030/ID5050

*3/4.2MP, Polarization/Transparent lens cap, Integrated lens cap*

ID5120/ID5200

12/20MP, without light source, C-Mount

Covers 3.0-12MP resolution, cameras achieve super high code-reading accuracy and large field of view. A single device can replace the use of multiple code readers at one time, which makes complex systems easier.

The Smart Code Reading Camera adopts embedded multi-core algorithm. The reconstructed data stream is processed in parallel among the underlying CPU, FPGA, and DSP chips; multi-threading of shooting, positioning and decoding is realized, and the efficiency of collective auditing learning technology is improved by 3 times
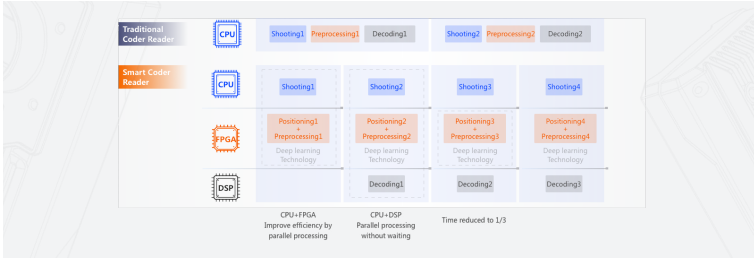
Accessories

Power&I/O cable	Standard	High flex	Bending
3m	MV-IDA-P-M12A12pF-open-ST-3m	MV-IDA-P-M12A12pF-open-HF-3m	MV-ACP-M12A12pF(90°)-open-ST-3m
5m	MV-IDA-P-M12A12pF-open-ST-5m	MV-IDA-P-M12A12pF-open-HF-5m	-
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	-	-

GigE Cable	Standard	High flex	Bending
3m	MV-IDA-E-M12A8pF-RJ45-ST-3m	MV-IDA-E-M12A8pF-RJ45-HF-3m	MV-ACE-M12A8Pm(90°)-RJ45-ST-3m
5m	MV-IDA-E-M12A8pF-RJ45-ST-5m	MV-IDA-E-M12A8pF-RJ45-HF-5m	-
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-25m	-	-
20m	-	MV-IDA-E-M12A8pF-RJ45-HF-20m	-
30m	MV-IDA-E-M12A8pF-RJ45-ST-30m	-	-

Lens	M12 Lens Mount	C Mount With Lens cap	C Mount Without Lens cap
8mm	BHYB0856-12S	C-Mount lenses with dimension smaller than Φ48 mm × 62 mm	All C-Mount Lenses
12mm	BHP1256-12S		
16mm	BHP1656-12S		
25mm	BHP2556-12S		

Lens cap	ID5030/ID3050	ID5060
Transparent	✅	✅
Half polarization	✅	-
Full polarization	✅	✅

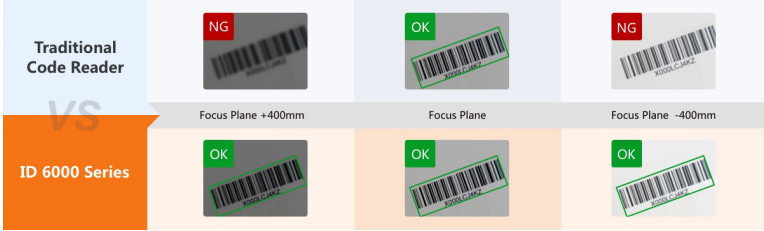| Mount bracket	Model No.
Standard	V024

ID6000 Series Code Readers For Logistics

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.

Based on high-performance multi-core deep learning processor, ID6000 series has specially optimized decoding algorithm and high decoding frames rate. It can identify complex codes in common environment such as stained, defective and poorly printing codes.

| Short Barcode | Film Coverage | Dirt | Bending |
| Reflective | Blur | Distortion | Folds |

ID6000 series can be matched with various types of external integrated light sources, combined with high-performance decoding algorithms, to achieve a super-large depth of field effect of over 700mm, can cover packages under 700mm through 1 camera.

Traditional Code Reader	NG	OK	NG
VS	Focus Plane +400mm	Focus Plane	Focus Plane -400mm
ID 6000 Series	OK	OK	OK

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Max. reading speed	Interface	Lens Mount
ID6089M-00C-NNG	1″	3.45 µm	4096 × 2160	30 fps	90codes/sec	GigE	C-Mount
ID6200EM-00C-NNG	1″	2.4 µm	5440 × 3648	10 fps	30codes/sec	GigE	C-Mount
ID6200M-00C-NNG	1″	2.4 µm	5440 × 3648	20 fps	60 codes/sec	GigE	C-Mount
ID6200PM-00C-NNG	1.1″	2.5 µm	5120 × 3968	20 fps	60 codes/sec	GigE	C-Mount

Accessories

Lens	Model
KF/KF-E series	

Light	Model
Standard	MV-LB-270-140-4030WL-A

Control unit	Model
VC2000 series	MV-VC2000-128G40-NN
IPC2000 series	MV-IPC-2302 MV-IPC-2504/MV-IPC-2504L/MV-IPC-2504-2T/MV-IPC-2504L-2T/MV-IPC-2504-256G1T



Light	Power cable	Network cable	Light trigger cable	Camera to Light cable
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		

IDH Series Handheld Smart Code Readers

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.

Self-developed algorithm and excellent DPM code reading, IDH series has excellent reading performance for difficult codes: bump codes, plugged codes, low contrast, scratches, reflections, and curved codes. Can realize efficient code reading in complex scenarios:

Bump Code

Plugged Code

Low Contrast

Scratches

Reflections

Grey-back Code

L-side Missing Code

Curved Code
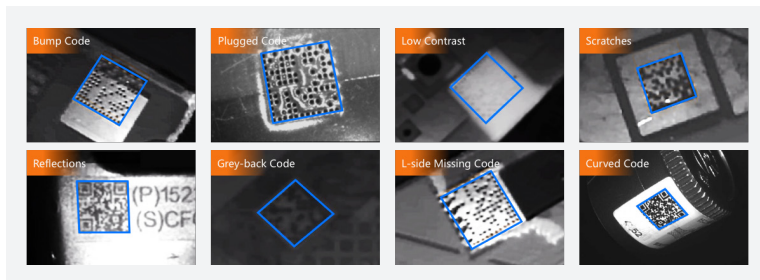
Network models support most common industrial communication protocols, such as Profinet and modbus, and etc..

IDH3013

IDH5010

IDH7010

Model	Sensor size	Pixel size	Resolution	Max. frame rate	Min. accuracy	Interface	Power supply	Power consumption	EFL
IDH3013-05x-R1L	1/4"	3 μm	1280 × 1024	50 fps	S:4 mil, N:3 mil	Fast Ethernet, RS-232	12~24 VDC	1.5 W@5 VDC	4.7 mm
IDH3013-05x-R1U	1/4"	3 μm	1280 × 1024	50 fps	S:4 mil, N:3 mil	USB2.0	5 VDC	1.5 W@5 VDC	4.7 mm
IDH5010-05-xR-L	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	Fast Ethernet, RS-232	12 ~ 24 VDC	4.94 W@12 VDC	5 mm
IDH5010-05-xR-U	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	USB3.0	5 VDC	4.36 W@5 VDC	5 mm
IDH7010P-07-xR-L	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	Fast Ethernet, RS-232	12 ~ 24 VDC	6 W@24 VDC	6.7 mm
IDH7010P-07-xR-U	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	USB2.0	12 ~ 24 VDC	6 W@24 VDC	6.7 mm
IDH7010B-07-xR-L	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	wireless (with network base)	3.8 VDC (Battery)	6.4 W@ 3.8 VDC	6.7 mm
IDH7010B-07-xR-U	1/4"	3 μm	1280 × 800	50 fps	S:4 mil, N:3 mil	wireless (with USB base)	3.8 VDC (Battery)	6.4 W@ 3.8 VDC	6.7 mm

Smart factory

Manufacturing

Retail

Warehousing

MSTARVISION

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Hangzhou Zhejiang 311121 China

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