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# Nanjing Bilin Intelligent Identification Technology Co., Ltd.

南京比邻智能识别技术有限公司

www.infoscan-cn.com



## Nanjing Bilin Intelligent Identification Technology Co., Ltd.


Office: 25th Floor, No.2 Huangpu Road, Nanjing, China
Plant & Warehouse: Building B6, No.9 Bancang Street, Nanjing, China

86-400-700-6288

www.infoscan-cn.com


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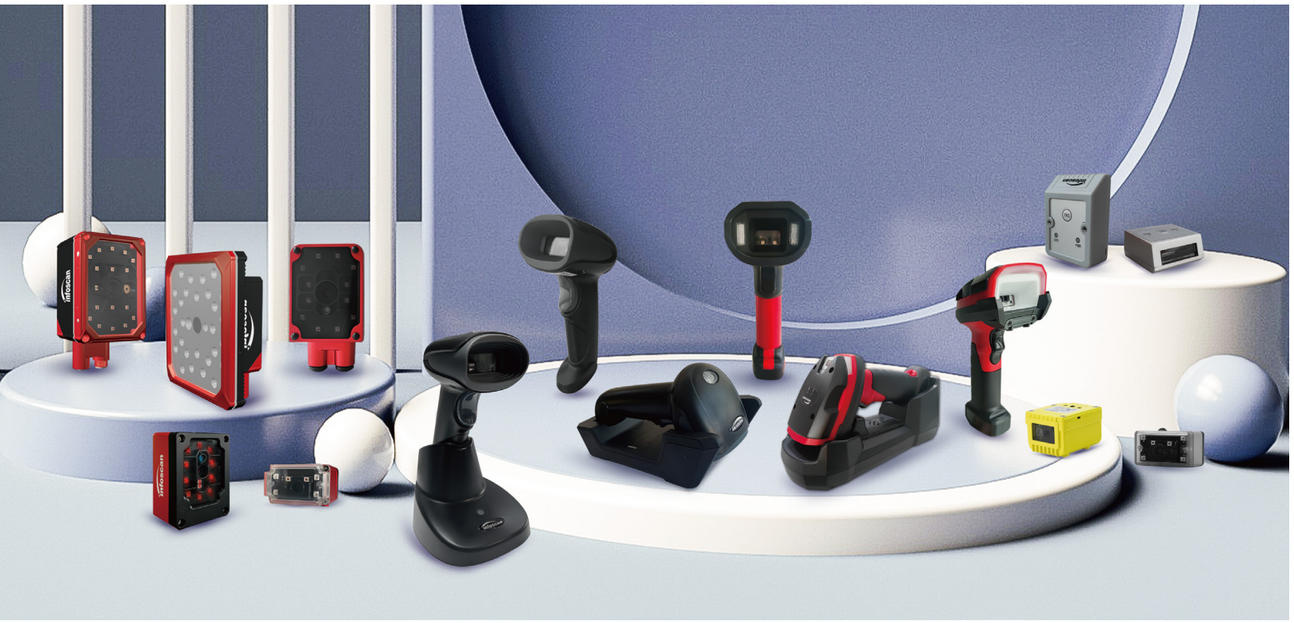

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# BRAND INTRODUCTION


Nanjing Bilin lntelligent ldentification Technology Co., Ltd. (hereinafter referred to as "Bilin Intelligence") is a subsidiary of Nanjing Golden Dongkang Information System Co., Ltd., which is a leading enterprise in China that has been focusing on the automatic identification industry for 30 years. Bilin Intelligence is a high-tech enterprises in the R&D and manufacturing of IoT data collection products in the field of automatic identification, machine vision and intelligent sensing terminal, etc.

The first industrial barcode reader of Bilin Intelligence was born in 2009, taking the lead in breaking the long-term monopoly of foreign products in this field.

By the end of 2022, more than 200,000 units of infoscan industrial barcode reading devices have been installed in 3C/New energy/Automobile/Medical equipment and other manufacturing application fields.

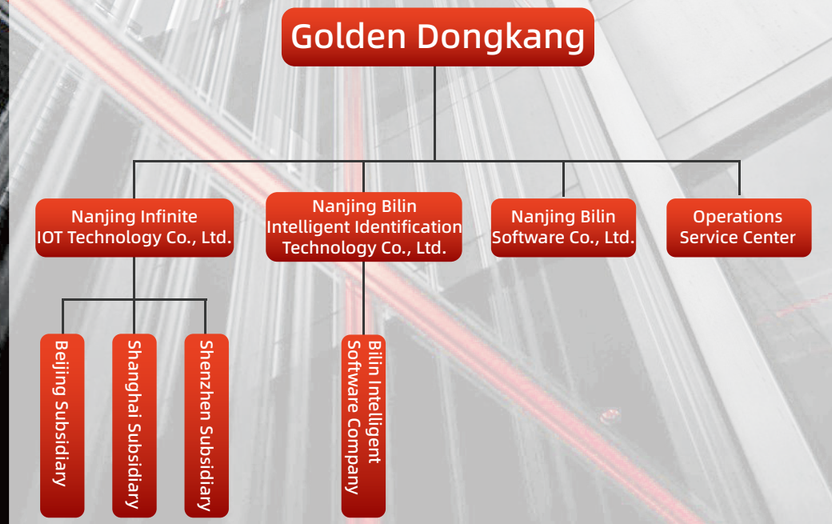


Golden Dongkang Information System Co., Ltd. was founded in 1997, taking the lead in promoting the applications and solutions of bar code and QR code technology in China;

Its three subsidiaries - Bilin Software, Bilin Intelligence and Infinite IOT - have respectively achieved outstanding results in the fields of intelligent manufacturing software (MES&WMS), IOT intelligent data collection terminals, and IOT application solutions;

Golden Dongkang has been the Vice Chairman company of Automatic Identification Manufacture Association Of China (AIM China) for multiple consecutive terms.





# INDEPENDENT PRODUCTION

## Entire Process Quality Monitoring

The entire production process is imported into the traceability control system: From raw material testing to finished product warehousing, it undergoes four quality checks throughout the entire production process. Ensuring products quality and delivery cycle in response to numerous customized and small batch demands in the industry.

## Ensure Fast Delivery

Our own production base and quality control laboratory ensure fast and sufficient delivery of orders.

## Meeting Personalized Needs

Enhance customer added value through personalized customization, such as customization needs for logo or configurations, etc.



# CLIENTS

Goertek

Quanta Computer

wistron
Innovation · Integrity
創新・誠信

臻鼎科技集團
Zhen Ding Tech. Group

FOXCONN
富士康科技集团

GREE 格力

AOC
冠捷显示器

KHB
科华生物

CATL 宁德时代

BYD
比亚迪汽车

JinKO Solar

JA SOLAR
晶澳太阳能

# DEVELOPMENT HISTORY

## 2009

In 2009, Bilin Intelligence officially launched its first industrial fixed-mount barcode reader FS32

## 2011

In 2011, Registered the trademark "infoscan"

## 2012

In 2012, infoscan family's classic barcode reader FS36 was launched

## 2016

In 2016, Bilin Intelligent Identification Technology Co., Ltd. was officially established and became a subsidiary of Golden Dong Kang

2009–2023

## 2017

In 2017, FV300N series readers were launched (the FV series high-performance barcode scanners were officially launched)

## 2018

In 2018, FV100 series barcode readers were launched (the first reader to use a liquid zoom lens)

## 2020

In 2020, FV5X/6X series readers were launched (using innovative designs such as magnetic levitation lenses and combined illuminant, etc.)

## 2021

The FV3X series barcode readers were launched in 2021 (the first entry-level industrial barcode scanner with polarized lighting design)

## 2023

In 2023, FV200 series readers were launched (the first barcode reader with touch screen)

# FV High-performance Fixed-mount Series




# FV3X Series

## Compact Industrial Barcode Reader

## Product Features

**Embedded product; Ultra-small structure**
**Easy to be integrated with equipments**

Dimensions:
40.0mmX37.4mmX26.9mm

**Support common communication modes**
**Suitable for most equipment integration requirements**

The body interface supports Serial port / USB(simulated keyboard, simulated Serial port)communication modes
The interface automatically adapts to cableswitching

**Megapixel combines with good illumination**

1280x800 Pixel CMOS
Taking the lead in providing polarized lighting

**Excellent DPM reading ability**
**Keep up with the development of code reading applications**

Applicable for normal barcodes and DPM codes
Dynamic exposure can automatically adapt to more code reading requirements

## Applications

- Medical Testing Equipment Code Reading Integration
- Test Instrument Code Reading Integration
- Self-service Terminals Code Reading Integration
- Printing, inkjet code, etc., Encoding Match

## Reading Distance And Visual Field

| Barcode Specifications | FV31 Nearest | FV31 Farthest | FV31L Nearest | FV31L Farthest |
|---|---|---|---|---|
| 3.34mil Code 128 | 50 | 110 | 60 | 110 |
| 5mil Code 128 | 40 | 130 | 60 | 120 |
| 6.67mil Code 128 | 40 | 140 | 50 | 140 |
| 10mil Code 128 | 40 | 160 | 30 | 150 |
| 15mil Code 128 | 40 | 190 | 40 | 180 |
| 5mil DataMatrix | 40 | 110 | 70 | 110 |
| 6.67mil DataMatrix | 40 | 120 | 60 | 110 |
| 10mil DataMatrix | 40 | 150 | 50 | 130 |
| 15mil DataMatrix | 40 | 160 | 50 | 150 |

Unit（mm）

| Reading Distance | FV31 X-axis field of view | FV31 Y-axis field of view | FV31L X-axis field of view | FV31L Y-axis field of view |
|---|---|---|---|---|
| 50 | 40 | 30 | 30 | 20 |
| 100 | 90 | 60 | 70 | 40 |
| 150 | 130 | 80 | 100 | 60 |
| 200 | 170 | 110 | 130 | 80 |

## Technical Specifications

| | |
|---|---|
| Sensor | 1/4 inch CMOS, global shutter |
| Image Resolution | 1280X800 |
| Collection Speed | Up to 72 frame/s |
| Focusing Mode | Fixed focus |
| Lens Focal Length | FV31: 4mm FV31L/FV32: 6mm |
| Viewing Angle | FV31: 48° (horizontal）， FV31L/FV32: 34° (horizontal) |
| Trigger Mode | Command trigger, I/O trigger,Continuous reading mode,Key trigger, Induction mode |
| LED Indicator | 3 LED indicator lights (power,reading success, reading failure) |
| Illumination Source Type | Body light source: 2LED(high-brightness)<br>Auxiliary light sources: 4LED(high-brightness or polarized) |
| Illumination Source Color | Body light source: Red LED， Auxiliary light source: Red or White LED |
| Aiming Mode | Laser cross aiming |
| Laser Safety Level | Class 2 |
| Communication Modes | RS232, USB (simulated Serial port,simulated Keyboard) |
| Power Supply | 5VDC / USB Power supply |
| Power Consumption | 1.2W (standby status), 1.75W (in average), 2W (peak) |
| Operation Current | Standby: 240mA, Average: 350mA, Maximum: 400mA |
| Number of Input Signals | 1 |
| Type of Input Signals | NPN or PNP |
| Number of Output Signals | 2 |
| Type of Output Signals | Voltage signal |
| Shell Material | Aluminum alloy |
| Weight | 38g (Excluding cables) |
| Dimensions (L x W x H) | 40.0mm x 37.4mm x 26.9mm |
| Operating Temperature | -10 ~ 50 ℃ |
| Storage Temperature | -20 ~ 65 ℃ |
| Relative Humidity | 5% ~ 95% non-condensing |
| Vibration Resistance | 10 to 55 Hz: double amplitude 2.5 mm / 3 hours in X, Y or Z direction |
| IP Rating | IP54 |
| EMC | EN55032:2015,EN55024:2010 |
| Certifications | CE,RoHS |
| Readable Code Symbologies | 1D, 2D and stacked codes in accordance with national and international standards |
| Maximum Reading Accuracy | FV31/FV31L: 1D code 3mil / 2D code 5mil;<br>FV32: 1D code 2mil / 2D code 3mil |

## Standard Model Configuration Table

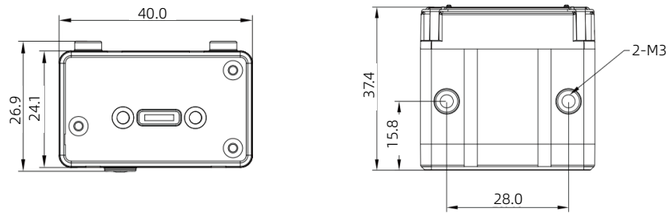
REC

| Model | Description |
|---|---|
| FV31-2110 | 1280*800 Pixels, Red LED light source, Standard light, Standard viewing angle |
| FV31-2100 | 1280*800 Pixels, White LED light source, Standard light, Standard viewing angle |
| FV31-2200 | 1280*800 Pixels, White LED light source, Polarized light, Standard viewing angle |
| FV31L-2110 | 1280*800 Pixels, Red LED light source, Standard light, Narrow viewing angle |
| FV31L-2100 | 1280*800 Pixels, White LED light source, Standard light, Narrow viewing angle |
| FV31L-2200 | 1280*800 Pixels, White LED light source, Polarized light, Narrow viewing angle |
| FV32-2110 | 1280*800 Pixels, Red LED light source, Standard light, High accuracy |
| FV32-2100 | 1280*800 Pixels, White LED light source, Standard light, High accuracy |
| FV32-2200 | 1280*800 Pixels, White LED light source, Polarized light, High accuracy |



## Dimensions

Unit（mm）





# FV61/FV63L Series

## Compact Industrial Barcode Scanner

Industrial Barcode Scanner FV61/63L series adopt rich light source combination and various lens configu rations as well as built-in image processing and DPM algorithm, with excellent DPM code reading ability and good dynamic code reading performance. It is an appropriate choice for various applications scenari□os of industrial manufacturing.

## Product Features

### Good Code Reading Performance

Can quickly read barcodes such as paper/laser engraving/inkjet printing codes;
Slightly stained or distorted barcodes also can be decoded and corrected through built-in rich image processing technology, which is more suitable for practical applications.

### Industrial Grade Design

The design of IP65/Circular connector/Anti-drag cable can adapt to harsh working environment.
Compatible with mainstream communication mode and industrial bus protocol, convenient for integrated communication with industrial automation equipment.

### Automatic Optical Focusing (FV63L Series)

Micro-drive technology is used to achieve automatic optical focusing at different reading distances, so the installation position is not needed to be repeatedly adjusted.

### Powerful Optical Configuration

A variety of lighting combinations are built in this compact device, which can provide the fitted lighting schemes for different encoding modes;
Two different focal length specifications, 4mm and 6mm, are available for choice to meet different reading distance and field of view requirements.

## Applications

- Automated Production Line
- Laser/Inkjet Code and Other Coding Match
- Robot Integration
- Integration of Test Instruments
- Automation Equipment Integration

# Reading Distance And Visual Field

| Barcode Specifications | FV61 Series (4mm) | | FV63L Series (6mm) | |
|---|---|---|---|---|
| | Nearest | Farthest | Nearest | Farthest |
| 3.34mil Code 128 | 45 | 122 | 45 | 160 |
| 5mil Code 128 | 40 | 170 | 40 | 240 |
| 6.67mil Code 128 | 28 | 220 | 40 | 330 |
| 10mil Code 128 | 28 | 260 | 35 | 490 |
| 15mil Code 128 | 35 | 339 | 45 | 730 |
| 20mil Code 128 | 45 | 430 | 55 | 930 |
| 3.34mil DataMatrix | NA | NA | 60 | 100 |
| 5mil DataMatrix | 57 | 85 | 50 | 105 |
| 6.67mil DataMatrix | 40 | 115 | 43 | 170 |
| 10mil DataMatrix | 32 | 188 | 40 | 255 |
| 15mil DataMatrix | 30 | 230 | 35 | 375 |
| 20mil DataMatrix | 30 | 312 | 40 | 480 |

Unit（mm）

| Reading distance | FV61 Series (4mm) | | FV63L Series (6mm) | |
|---|---|---|---|---|
| | X-axis field of view | Y-axis field of view | X-axis field of view | Y-axis field of view |
| 50 | 43 | 27 | 31 | 22 |
| 100 | 91 | 57 | 66 | 42 |
| 150 | 128 | 81 | 99 | 63 |
| 200 | 174 | 110 | 133 | 82 |
| 300 | 251 | 163 | 203 | 128 |

# Technical Specifications

| | |
|---|---|
| Sensor Type | 1/4 inch CMOS sensor, global shutter |
| Image Resolution | 1280x800 |
| Acquisition Speed | Up to 72 FPS |
| Focus Mode | FV61 Series: Fixed-focus,FV63L Series: Auto-focus |
| Lens Focal Length | FV61: 4mm , FV61L/FV63L: 6mm |
| Viewing Angle | FV61: 48° (horizontal), FV61L/FV63L: 34° (horizontal) |
| Trigger Mode | Command trigger; I/O trigger; Continuous reading mode; Key trigger; Induction trigger |
| LED Indicator | 4 LED Indicators (Power, Reading success, Reading failure, Automatic parameter adjustment) |
| Illumination Source Type | Grouping control is feasible/Combined light source/Polarized light source /High-brightness light source |
| Illumination Source Color | Red/ White LED |
| Aiming Mode | Laser cross aiming |
| Laser Safety Level | Class 2 |
| Communication Interface | Ethernet, RS232, USB (simulated serial port, simulated keyboard）(Note 1) |
| Communication Protocol | Ethernet: TCP/IP, Profinet, Modbus TCP, EtherNet/IP Serial port: RS232 |
| Power Supply | 5VDC / 24VDC |
| Power Consumption | 2.5W (standby) 11.5W (peak) 4W (in average) (Note 2) |
| Number of Input Signals | 2 |
| Type of Input Signals | NPN |
| Number of Output Signals | 2 |
| Output Load Capacity | Single Maximum: 100mA@24VDC,Total Maximum: 200mA@24VDC |
| Shell Material | Aluminum alloy |
| Weight | 130 g |
| Dimensions(L×W×H) | 57.0mmx42.0mmx28.5mm |
| Operating Temperature | -10 ~ 50 ℃ |
| Storage Temperature | -20 ~ 70 ℃ |
| Relative Humidity | 5% ~ 95% Non-condensing |
| Ambient Light Immunity | 0 ~ 100,000 Lux |
| IP Rating | IP65 |
| Certifications | CE,RoHS |
| Readable Code Symbologies | 1D, 2D and stacked codes in accordance with national and international standards |
| Maximum Reading Accuracy | FV61/FV61L 1D code: 3mil / 2D code: 5mil<br>FV63L 1D code: 1.8mil / 2D code: 3mil |

Note 1: USB communication mode can be achieved in specified model and with 5VDC power supply;
Note 2: The values are measured when the operating voltage is 24VDC and without external load.

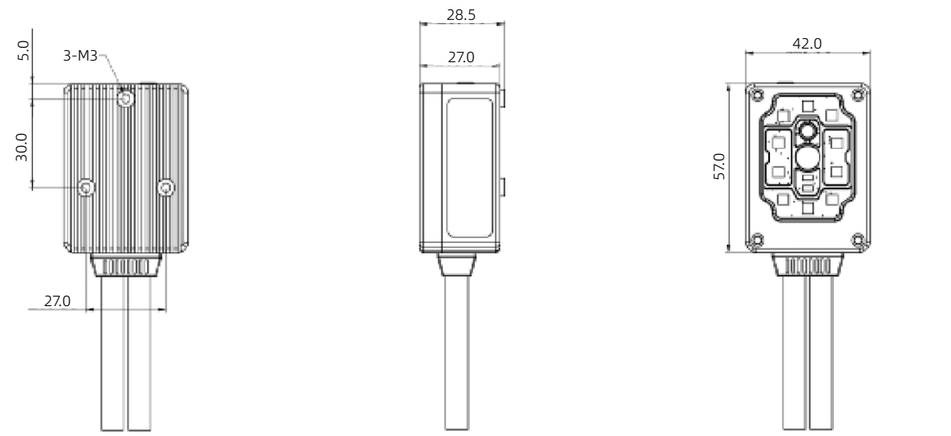


# Standard Model Configuration Table

| REC | Model | Description |
|---|---|---|
| FV61 | FV61-2100 | 1280*800 Pixel \ White bright light \ Fixed-focus \ Standard field of View \ Serial port + Ethernet |
| | FV61-2210 | 1280*800 Pixel \ Red polarized light \ Fixed-focus \ Standard field of view \ Serial port + Ethernet |
| | FV61-2200 | 1280*800 Pixel \ White polarized light \ Fixed-focus \ Standard field of view \ Serial port + Ethernet |
| | FV61-2310 | 1280*800 Pixel \ Red combined light \ Fixed-focus \ Standard field of view \ Serial port + Ethernet |
| | FV61-2300 | 1280*800 Pixel \ White combined light \ Fixed-focus \ Standard field of view \ Serial port + Ethernet |
| | FV61(U)-2210 | 1280*800 Pixel \ Red polarized light \ Fixed-focus \ Standard field of view \ USB + Ethernet \ 5V Power supply |
| | FV61(U)-2310 | 1280*800 Pixel \ Red combined light \ Fixed-focus \ Standard field of view \ USB + Ethernet \5V Power supply |
| | FV61(U)-2300 | 1280*800 Pixel \ White combined light \ Fixed-focus \ Standard field of view \ USB + Ethernet \ 5V Power supply |
| FV63L | FV63L-2110 | 1280*800 Pixel \ Red bright light \ Auto-focus \ Narrow field of view \ Serial port + Ethernet |
| | FV63L-2100 | 1280*800 Pixel \ White bright light \ Auto-focus \ Narrow field of view \ Serial port + Ethernet |
| | FV63L-2210 | 1280*800 Pixel \ Red polarized light \ Auto-focus \ Narrow field of view \ Serial port + Ethernet |
| | FV63L-2200 | 1280*800 pixel \ White polarized light \ Auto-focus \ Narrow field of view \ Serial port + Ethernet |
| | FV63L-2310 | 1280*800 pixel \ Red combined light \ Auto-focus \Narrow field of view \ Serial port + Ethernet |
| | FV63L-2300 | 1280*800 pixel \ White combined light \ Auto-focus \ Narrow field of view \ Serial port + Ethernet |
| | FV63L(U)-2210 | 1280*800 pixel \ Red polarized light \ Auto-focus \ Narrow field of view \ USB + Ethernet \ 5V Power supply |
| | FV63L(U)-2200 | 1280*800 pixel \ White polarized light \ Auto-focus \ Narrow field of view \ USB + Ethernet \ 5V Power supply |
| | FV63L(U)-2310 | 1280*800 pixel \ Red combined light \ Auto-focus \ Narrow field of view \ USB + Ethernet \ 5V Power supply |
| | FV63L(U)-2300 | 1280*800 pixel \ White combined light \ Auto-focus \ Narrow field of view \ USB + Ethernet \ 5V Power supply |

# Dimensions

Unit（mm）



# FV104 Series (V2.0)

## Industrial Fixed Mount Liquid Focusing Barcode Scanner

Innovative design of new illumination unit modules, achieving fast on-site switching of different illumination schemes (polarized light/atomized light/combined light); Significant improvement in lighting brightness and computing power; Continue to use intuitive and simple manual focusing method; Meet various industrial scenarios with high cost-effectiveness.

## Product Features

### Innovative Illumination Unit for DPM Reading

Optional illumination covers provided: atomization/polarization /atomization+polarization

Quick disassembly and installation, switching lighting schemes in just a few seconds

Optimize the layout and brightness of the body Illumination, for more uniform lighting

### Good Dynamic Reading Performance

High performance CMOS, providing an acquisition rate of 60 frames per second 60% Improvement in lighting brightness compared with the last generation products

Provide enhanced decoding mode for more efficient shooting and decoding

### Manual focusing lens

Adopting manual focusing method, an economical and practical focusing solution

Adopting a larger field of view angle lens (7.5mm focal length), suitable for medium to close range reading scenes

### Meet Various Industrial Scenarios, With Better Versatility

Support NPN and PNP trigger signals; Graphical setting of interface logic, for complex signal and data interaction

Support multiple industrial Ethernet protocols to cope with mainstream PLC communication integration

Rich software functions such as one-click automatic parameters adjustment, multiple sets of exposure polling, 10 sets built-in configurations, etc.

## Applications

Product Traceability

Laser/ink-jet Coding Matching

Device Integration

Automobile Manufacturing

Photovoltaic Industry

Electronic Manufacturing



## Reading Distance And Visual Field

| Barcode specifications | Nearest | Farthest |
|---|---|---|
| 3.34mil Code 128 | 25 | 285 |
| 5mil Code 128 | 20 | 425 |
| 6.67mil Code 128 | 20 | 570 |
| 10mil Code 128 | 25 | 700 |
| 15mil Code 128 | 40 | 905 |
| 5mil DataMatrix | 25 | 105 |
| 6.67mil DataMatrix | 25 | 155 |
| 10mil DataMatrix | 25 | 260 |
| 15mil DataMatrix | 25 | 395 |

Unit（mm）

| Reading distance | X-axis field of view | Y-axis field of view |
|---|---|---|
| 50 | 33 | 24 |
| 100 | 65 | 48 |
| 150 | 95 | 70 |
| 200 | 130 | 95 |
| 300 | 189 | 108 |
| 400 | 250 | 187 |

## Technical Specifications

| | |
|---|---|
| Sensor | 1/3 inch CMOS sensor, global shutter |
| Image Resolution | 1280×960 |
| Frame Rate | Up to 60 frame/s |
| Lens Type | Manual focusing |
| Focal Length | 7.5mm |
| Angle Of View | 37° (horizontal), 28° (vertical) |
| Roll/ Pitch/ Yaw | 360° (roll)/ 65° (pitch)/ 65° (yaw) |
| Triggering Mode | Command trigger; I/O trigger; Continuous reading mode; Key trigger, etc. |
| LED Indicator | 4 LED indicator lights (power, reading success, reading failure, automatic parameter adjustment) |
| Illumination Source | 12pcs LED lights / Can be controlled in groups / High-brightness light source / Polarized light source |
| Illumination Source Color | Red / White LED light source available |
| Front Cover of Illumination | Atomization Cover / Polarization Cover /Atomization+Polarization Cover (combined use with high-brightness light source) |
| Aiming Mode | Laser cross aiming |
| Laser Safety Level | Class 2 |
| Communication Interface | Ethernet, Serial port |
| Communication Protocol | Ethernet: TCP/IP, FTP, Profinet,Modbus TCP,EtherNet/IP, Serial port: RS232 |
| Power Supply | 20 ~ 30 VDC |
| Power Consumption | 2.2W (Standby), 12W (Peak), 4W (Average) |
| Operating Current | Standby: 110mA, Peak: 600mA, Average: 200mA |
| Number of Input Signals | 2 |
| Type of Input Signal | NPN or PNP |
| Effective Voltage of Input Signal | NPN: ≤16V PNP: ≥5V (Max: 24V) |
| Number of Output Signals | 4 |
| Output Load Capacity | Single Maximum: 100mA@24VDC,Total Maximum: 200mA@24VDC |
| Shell Material | Aluminum alloy |
| Weight | 196.3g (excluding cables) |
| Dimensions(L×W×H) | 88.9mm×52.8mm×37.8mm |
| Operating Temperature | -25℃ ~ 60℃ |
| Storage Temperature | -40℃ ~ 70℃ |
| Relative Humidity | 5% ~ 95% non-condensing |

| | |
|---|---|
| Ambient Light Immunity | 0 ~ 100,000 Lux |
| Vibration Resistance | 10 ~ 55 Hz, double amplitude 0.75mm, 3 hours in x, y or z direction |
| IP Rating | IP65 |
| ESD Protection | ±10KV Indirect coupling surface, ±16KV Direct air discharge |
| Explosion Proof Grade (specified model) | Exib IIA T4 Gb |
| Certifications | CE, RoHS, etc. |
| Readable Code Symbologies | 1D, 2D and stacked codes that meet national and international standards |
| Maximum Reading Accuracy | 1D code: 1.6 mil 2D code: 2 mil |

## Standard Model Configuration Table

### FV104 (V2.0) Manual Focusing Model

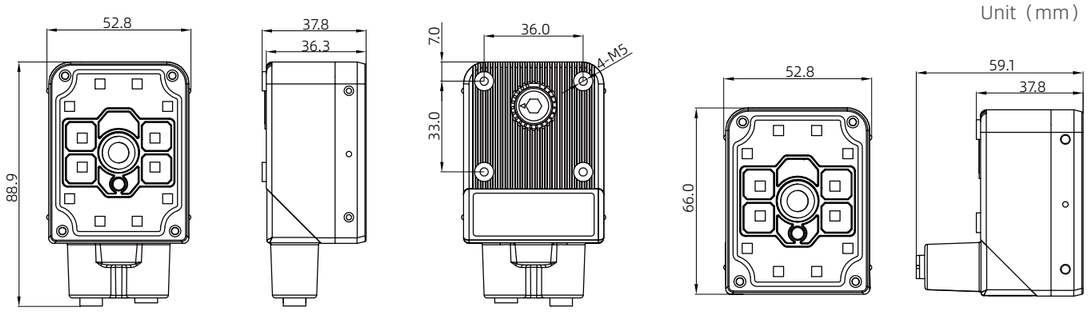
| Model | Description |
|---|---|
| FV104-1110 V2.0 | 1.2 megapixel, red LED high-brightness light source, laser aiming |
| FV104-1210 V2.0 | 1.2 megapixel, red LED fully-polarized light source, laser aiming |

### FV104 (V2.0) Dedicated Illumination Kits

| Model | Description |
|---|---|
| FT10012PD | High-brightness illumination dedicated, semi-polarized with semi-atomized illumination kit |
| FT10012PP | High-brightness illumination dedicated, fully-polarized illumination kit |
| FT10012DD | High-brightness illumination dedicated, fully-atomized illumination kit |

## Dimensions

Unit（mm）






# FV105 Series (V2.0)

## Industrial Fixed Mount Liquid Focusing Barcode Scanner

Innovative design of new illumination unit modules, achieving fast on-site switching of different illumination schemes (polarized light/atomized light/combined light); Significant improvement in lighting brightness and computing power; Enriched liquid lens specifications and configurations to meet more requirements of visual field and distance. It can widely meet various reading scenarios such as DPM challenging barcodes, multiple codes reading, high-speed, high-frequency, diverse fields of view and distance.

## Product Features

### Innovative Illumination Units for DPM Reading

Illumination cover options provided: atomization /polarization/atomization+polarization
Quick disassembly and installation, switching lighting schemes in just a few seconds
Optimized the layout and brightness of the body Illumination, for more uniform lighting

### Good Dynamic Reading Performance

High performance CMOS, providing an acquisition rate of 60 frames per second 60% Improvement in lighting brightness compared with the last generation products
Provide enhanced decoding mode for more efficient shooting and decoding

### Provide a Variety of Liquid Focusing Lens

The optional lens specifications are as follows: 6mm/12mm/16mm
Long-term use of liquid lenses, accumulated rich experience in applications

### Meet Various Industrial Scenarios, With Better Versatility

Support NPN and PNP trigger signals; Graphical setting of interface logic, for complex signal and data interaction
Support multiple industrial Ethernet protocols to cope with mainstream PLC communication integration
Rich software functions such as one-click automatic parameters adjustment, multiple sets of exposure polling, 10 sets built-in configurations, etc.

## Applications

- Product Traceability
- Laser/ink-jet Coding Matching
- Device Integration
- Automobile Manufacturing
- Photovoltaic Industry
- Electronic Manufacturing

## Reading Distance And Visual Field

Unit（mm）

| Barcode specifications | FV105N | | FV105S | | FV105L | |
|---|---|---|---|---|---|---|
| | Nearest | Farthest | Nearest | Farthest | Nearest | Farthest |
| Code 128 | | | | | | |
| 3.34mil | 50 | 108 | 50 | 228 | 50 | 337 |
| 5mil | 50 | 162 | 50 | 342 | 50 | 505 |
| 6.67mil | 50 | 216 | 50 | 456 | 50 | 674 |
| 10mil | 50 | 324 | 50 | 684 | 50 | 1010 |
| 15mil | 50 | 487 | 50 | 1026 | 50 | 1516 |
| DataMatrix | | | | | | |
| 5mil | 50 | 88 | 50 | 186 | 50 | 275 |
| 6.67mil | 50 | 118 | 50 | 248 | 50 | 367 |
| 10mil | 50 | 177 | 50 | 373 | 50 | 551 |
| 15mil | 50 | 265 | 50 | 559 | 50 | 827 |

| Reading distance | FV105N | | FV105S | | FV105L | |
|---|---|---|---|---|---|---|
| | X-axis field of view | Y-axis field of view | X-axis field of view | Y-axis field of view | X-axis field of view | Y-axis field of view |
| 50 | 42 | 32 | 24.5 | 18 | 17 | 12.8 |
| 100 | 85 | 63 | 45 | 34 | 29 | 22 |
| 150 | 126 | 93 | 65 | 48 | 42 | 32 |
| 200 | 167 | 124 | 85 | 64 | 55 | 42 |
| 300 | 248 | 183 | 126 | 94 | 81 | 61 |
| 500 | 400 | 300 | 208 | 156 | 133 | 101 |
| 1000 | 790 | 590 | 408 | 305 | 268 | 202 |

## Technical Specifications

| | |
|---|---|
| Sensor | 1/3 inch CMOS sensor, global shutter |
| Image Resolution | 1280×960 |
| Frame Rate | Up to 60 frame/s |
| Lens Type | Liquid lens, auto-focus |
| Focal Length | FV105N: 6mm; FV105S: 12mm;FV105L: 16mm |
| Angle of View | FV105N: 45° (horizontal), 33.8° (vertical),FV105S: 22° (horizontal) 16.5° (vertical)<br>FV105L: 15° (horizontal) 11.25° (vertical) |
| Roll/ Pitch/ Yaw | 360° (roll)/ 65° (pitch)/ 65° (yaw) |
| Triggering Mode | Command trigger; I/O trigger; Continuous reading mode; Key trigger, etc. |
| LED Indicator | 4 LED indicator lights (power, reading success, reading failure, automatic parameter adjustment) |
| Illumination Source | 12pcs LED lights / Can be controlled in groups / High-brightness light source / Polarized light source |
| Illumination Source Color | Red / White LED light source available |
| Front Cover of Illumination | Atomization Cover / Polarization Cover /Atomization+Polarization Cover (combined use with high-brightness light source) |
| Aiming Mode | Laser cross aiming |
| Laser Safety Level | Class 2 |
| Communication Interface | Ethernet, Serial port |
| Communication Protocol | Ethernet: TCP/IP, FTP, Profinet,Modbus TCP,EtherNet/IP, Serial port: RS232 |
| Power Supply | 20 ~ 30 VDC |
| Power Consumption | 2.2W (Standby), 12W (Peak), 4W (Average) |
| Operating Current | Standby: 110mA, Peak: 600mA, Average: 200mA |
| Number of Input Signals | 2 |
| Type of Input Signal | NPN or PNP |
| Effective Voltage of Input Signal | NPN: ≤16V PNP: ≥5V (Max: 24V) |
| Number of Output Signals | 4 |
| Output Load Capacity | Single Maximum: 100mA@24VDC,Total Maximum: 200mA@24VDC |
| Shell Material | Aluminum alloy |
| Weight | FV105N: 192.5g (excluding cables),FV105S: 195.4g (excluding cables),<br>FV105L: 191.3g (excluding cables) |
| Dimensions (L×W×H) | 88.9mm×52.8mm×37.8mm |

| | |
|---|---|
| Operating Temperature | -25℃ ~ 60℃ |
| Storage Temperature | -40℃ ~ 70℃ |
| Relative Humidity | 5% ~ 95% non-condensing |
| Ambient Light Immunity | 0 ~ 100,000 Lux |
| Vibration Resistance | 10 ~ 55 Hz, double amplitude 0.75mm, 3 hours in x, y or z direction |
| IP Rating | IP65 |
| ESD Protection | ±10KV Indirect coupling surface,±16KV Direct air discharge |
| Explosion Proof Grade (specified model) | Exib IIA T4 Gb |
| Certification | CE, RoHS, etc. |
| Readable Code Symbologies | 1D, 2D and stacked codes that meet national and international standards |
| Maximum Reading Accuracy | FV105N 1D code: 1.67 mil 2D code: 2.5 mil, FV105S 1D code: 3.3 mil 2D code: 5 mil<br>FV105L 1D code: 0.67 mil 2D code: 1mil |

## Standard Model Configuration Table

### REC FV105 (V2.0) Liquid Automatic Focusing Series

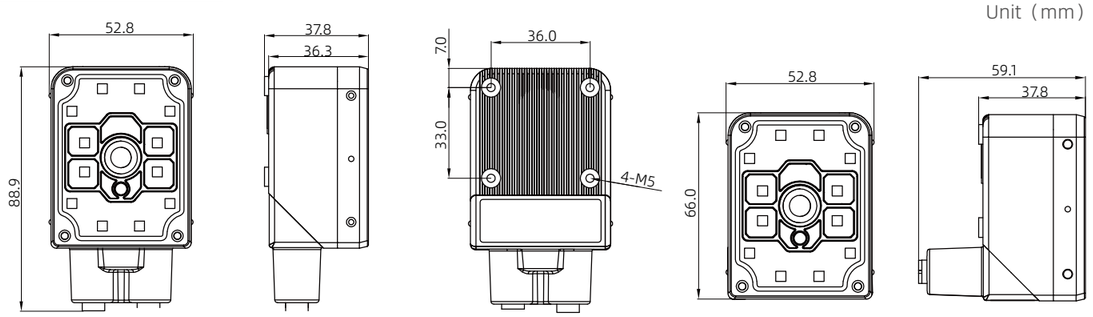
| Model | Description |
|---|---|
| FV105N-1110 V2.0 | 1.2 megapixel, 6mm liquid lens, red LED high-brightness light source, laser aiming |
| FV105S-1110 V2.0 | 1.2 megapixel, 12mm liquid lens, red LED high-brightness light source, laser aiming |
| FV105L-1110 V2.0 | 1.2 megapixel, 16mm liquid lens, red LED high-brightness light source, laser aiming |

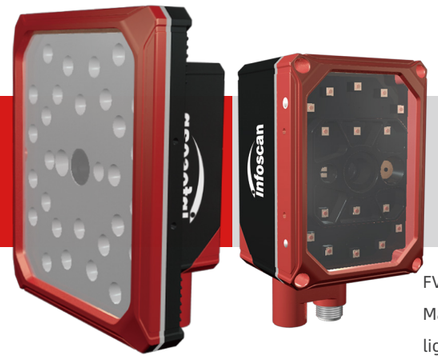
### FV105 (V2.0) Dedicated Illumination Kits

| Model | Description |
|---|---|
| FT10012PD | High brightness illumination dedicated, semi-polarized with semi-atomized illumination kit |
| FT10012PP | High brightness illumination dedicated, fully-polarized illumination kit |
| FT10012DD | High brightness illumination dedicated, fully-atomized illumination kit |

## Dimensions

Unit（mm）





# FV2X0 Series

## Intelligent Industrial Barcode Scanner

FV2X0 series is a high-performance intelligent barcode reader launched by infoscan in March 2023. It uses 2 megapixel wide-width and high-frame-rate CMOS, high-power lighting sources and liquid lenses with various specifications to address challenging code reading situations such as large field of vision, long-distance and ultra-high-speed. In addition, FV2X0 series reader is infoscan's first intelligent industrial barcode reader equipped with a touch screen that enable users to complete device configuration and status acquisition offline through the host screen.

## Product Features

### Significantly improvement of collection visual field

1920x1080 pixel High-frame-rate CMOS sensor
Adopt wide-width format, the long side pixel value has been increased from 1280 of the last generation to 1920, the field of vision has been improved by 50%

### Innovative light source kits enable fast switching of lighting modes

Multiple light source kits (polarized/atomized/combined light sources) enable flexible configuration of lighting
Innovative structural design, complete kit switching in only seconds

### More intelligent industrial barcode reader

infoscan's first high-performance barcode reader equipped with a touch screen, realize offline configuring and quick knowledge of the status of the device
Multiple indicator light feedback allows operators to quickly obtain the barcode reading status
Upgraded "one-click automatic parameter adjustment" function for faster and better completion of auto-focus and parameters configuration

### Improve the performance of reading high-speed moving barcodes

The standard lighting model FV220 uses 16pcs high-brightness LEDs; Enhanced lighting model FV260 has a total of 28pcs LEDs; Ensure sufficient lighting when shooting high-speed moving barcodes
Multi-core processor, high-speed image transmission processing and decoding

## Applications

- Large View Field Reading
- Multiple Barcodes Reading
- Wide-angle Reading
- High-speed Assembly Line Collection
- High-speed Assembly Line Collection



## Reading Distance And Visual Field

Unit（mm）

| Barcode specifications | FV220N/FV260N 6mm focal length lens Nearest | FV220N/FV260N 6mm focal length lens Farthest | FV220S/FV260S 12mm focal length lens Nearest | FV220S/FV260S 12mm focal length lens Farthest | FV220L/FV260L 16mm focal length lens Nearest | FV220L/FV260L 16mm focal length lens Farthest |
|---|---|---|---|---|---|---|
| Code 128 | | | | | | |
| 5mil | 40 | 245 | 65 | 522 | 70 | 772 |
| 6.67mil | 40 | 327 | 65 | 697 | 70 | 1030 |
| 10mil | 40 | 491 | 65 | 1045 | 70 | 1543 |
| 15mil | 40 | 736 | 65 | 1568 | 70 | 2315 |
| DataMatrix | | | | | | |
| 5mil | 40 | 134 | 65 | 285 | 70 | 421 |
| 6.67mil | 40 | 178 | 65 | 380 | 70 | 562 |
| 10mil | 40 | 268 | 65 | 570 | 70 | 842 |
| 15mil | 40 | 401 | 65 | 855 | 70 | 1163 |

| Reading distance | FV220N/FV260N 6mm focal length lens X-axis field of view | FV220N/FV260N 6mm focal length lens Y-axis field of view | FV220S/FV260S 12mm focal length lens X-axis field of view | FV220S/FV260S 12mm focal length lens Y-axis field of view | FV220L/FV260L 16mm focal length lens X-axis field of view | FV220L/FV260L 16mm focal length lens Y-axis field of view |
|---|---|---|---|---|---|---|
| 50 | 45 | 25 | 28 | 15 | 17 | 10 |
| 100 | 90 | 50 | 45 | 27 | 30 | 17 |
| 300 | 250 | 140 | 132 | 73 | 82 | 45 |
| 500 | 415 | 230 | 208 | 115 | 135 | 75 |
| 800 | 680 | 370 | 338 | 187 | 230 | 120 |
| 1000 | 830 | 463 | 410 | 232 | 260 | 150 |

## Technical Specifications

| Model | FV220 series | FV260 series |
|---|---|---|
| Sensor | 1/3 inch CMOS sensor, global shutter | |
| Image Resolution | 1920x1080 | |
| Collection Speed | Up to 100 FPS | |
| Lens Type | Liquid lens | |
| Lens Focal Length | FV2X0N: 6mm FV2X0S: 12mm FV2X0L: 16mm | |
| Viewing Angle | FV2X0N: 45° (horizontal) 26° (vertical) ,FV2X0S: 21° (horizontal) 13.5° (vertical) FV2X0L: 15° (horizontal) 8° (vertical) | |
| Roll/ Pitch/ Yaw | 360° (roll) 65°(pitch) 65° (yaw) | |
| Triggering Mode | Command triggering; I/O triggering; Inductive triggering; Continuous reading mode; Key triggering | |
| LED Indicator | Top position: 3 LED indicators (power supply, Ethernet connection and sending/receiving status); Around the body: blue (reading success), red (reading failure) | |
| Reading Area Indicator | Blue (reading success) Red (reading failure) | |
| Illumination Source Type | 16 LEDs / Grouping control of high-brightness light source is doable | 28 LEDs / High-brightness or polarized light source |
| Illumination Source Color | Red | |
| Front Cover of Illumination | Polarized/Atomized/Polarized+Atomized, etc. | NA |
| Aiming Mode | Laser cross aiming | |
| Laser Safety Level | Class 2 | |
| Host Screen | 1.3 inch, 240x240 pixels, Capacitive touch screen | |
| Communication Interface | Ethernet, Serial port | |
| Communication Protocols | Ethernet: TCP/IP, FTP, Profinet, Modbus TCP, EtherNet/IP, Serial port: RS232 | |
| Power Supply | 20 ~ 30 VDC | |

| | | |
|---|---|---|
| Power Consumption | Standby: 3.4W, Peak: 19.2W | Standby: 3.4W, Peak: 30W |
| Number of Input Signals | 3 | |
| Input Signal Type | NPN or PNP | |
| Effective Voltage of Input Signal | NPN: ≤ 16V, PNP: ≥5V (Max: 24V) | |
| Number of Output Signals | 3 | |
| Type of Output Signal | Voltage signal | |
| Output Load Capacity | Single maximum: 100mA@24VDC, Total maximum : 200mA@24VDC | |
| Shell Material | Aluminium alloy | |
| Weight | 330g (excluding cables) | 500g (excluding cables) |
| Dimensions(L×W×H) | 111.5mmx60.0mmx54.5mm | 131.0mmx106.0mmx59.0mm |
| Operating Temperature | 0 ~ 55 ℃ | |
| Storage Temperature | -20 ~ 70 ℃ | |
| Relative Humidity | 0 ~ 95% non-condensing | |
| ESD Protection | Air discharge: ±18KV, Contact discharge: ±8KV | |
| Vibration Resistance | 10 to 55 Hz, dual amplitude 0.3mm, 1 hour in X, Y or Z direction | |
| IP Rating | IP65 | |
| ESD Protection | Air discharge: ±18KV, Contact discharge: ±8KV | |
| Certifications | CE, RoHS, etc. | |
| Readable Code Symbologies | 1D, 2D and stacked codes in accordance with national and international standards | |
| Maximum Reading Accuracy | FV2X0N and FV2X0S 1D codes: 1.3mil; 2D codes: 2mil<br>FV2X0L 1D codes: 0.67mil; 2D codes: 1 mil | |

## Standard Model Configuration Table

### FV220 Standard Illumination Model

| Model | Lens Type | Light Source Type | Light Source Description |
|---|---|---|---|
| FV220N-1110 | 6mm (standard field of view) liquid lens | 16pcs LEDs standard light source | Red, non-polarized light source |
| FV220S-1110 | 12mm (smaller field of view) liquid lens | 16pcs LEDs standard light source | Red, non-polarized light source |
| FV220L-1110 | 16mm (narrow field of view) liquid lens | 16pcs LEDs standard light source | Red, non-polarized light source |

### FV260 Enhanced Illumination Model

| Model | Lens Type | Light Source Type | Light Source Description |
|---|---|---|---|
| FV260N-1110 | 6mm (standard field of view) liquid lens | 28pcs LEDs Enhanced light source | Red, non-polarized light source |
| FV260N-1210 | 6mm (standard field of view) liquid lens | 28pcs LEDs Enhanced light source | Red, polarized light source |
| FV260S-1110 | 12mm (smaller field of view) liquid lens | 28pcs LEDs Enhanced light source | Red, non-polarized light source |
| FV260L-1110 | 16mm (narrow field of view) liquid lens | 28pcs LEDs Enhanced light source | Red, non-polarized light source |

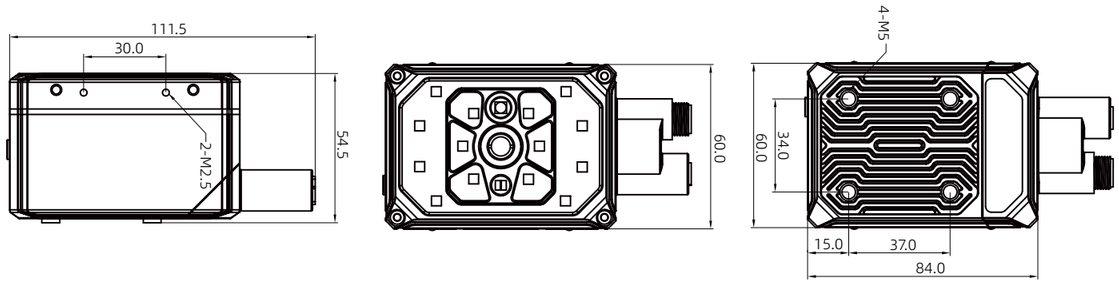


### FV220 Dedicated Illumination Kits

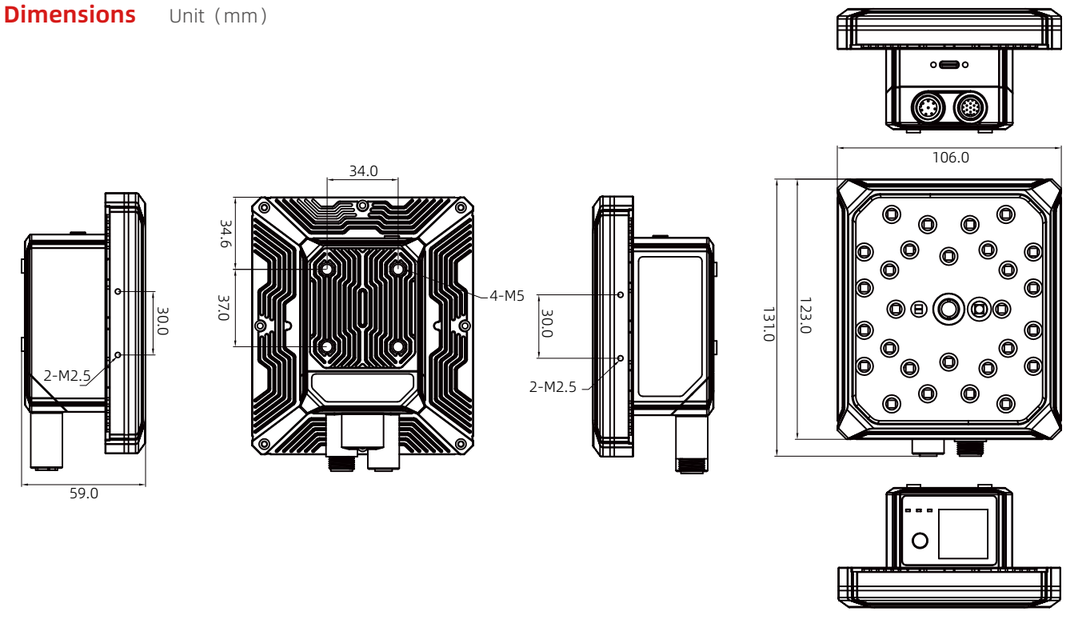
| Model | Description |
|---|---|
| FT20016PD | FV220 dedicated, Semi-polarized and semi-atomized light source kit |
| FT20016PP | FV220 dedicated, Fully polarized light source kit |
| FT20016DD | FV220 dedicated, Fully atomized light source kit |

## Dimensions

**FV220 Dimensions** Unit（mm）




**FV260 Dimensions** Unit（mm）



# HS Handheld Series

# HS3260

## Industrial Handheld Barcode Reader

HS3260 is an industrial wired handheld barcode scanner launched by brand "infoscan". Using megapixel sensor, efficient processors and well-designed lighting units. HS3260 series can instantly read printed barcodes, radium carved codes and common DPM barcodes, with IP65 protection grade design, vibrating prompt, 1.8m drop resistance, which fully meets harsh work environments.

## Product Features

### Excellent barcode reading performance

Megapixel CMOS sensor with excellent image and decoding algorithm, greatly improves reading fluency and reading depth of field. Meet various reading scenarios such as label bar code, radium carving bar code and dot matrix bar code, etc.

### Diverse feedback prompts

Equipped with LED light prompts, buzzer sound prompts and vibration sensing prompts. Ensure timely and accurate code reading feedback in noisy environment.

### Universal communication interface

Supports USB keyboard, USB simulation serial port and RS232 communication.

### Industrial grade design for demanding environments

Adopts IP65 protection grade design, which can withstand more than 30 times impact impact of falling from a 1.8m height to cement ground. The product is strong and durable, which minimizes the failure occuring.

## Applications

Home appliances manufacturing

Electronics manu-facturing

Automobile manufacturing

Transportation

Food and drug traceability

## Reading Range

Unit（mm）

| Barcode Specifications | Nearest | Farthest |
|---|---|---|
| 3.34mil Code 128 | 35 | 130 |
| 5mil Code 128 | 23 | 165 |
| 10mil Code 128 | 5 | 250 |
| 15mil Code 128 | 10 | 345 |
| 5mil DataMatrix | 45 | 85 |
| 6.67mil DataMatrix | 35 | 130 |
| 10mil DataMatrix | 25 | 180 |
| 15mil DataMatrix | 20 | 220 |

## Technical Specifications

| | |
|---|---|
| Sensor | CMOS sensor |
| Image Resolution | 1280x800 |
| Motion Tolerance | 100 cm/s |
| Viewing Angle | 34° (Horizontal), 21.25° (Vertical) |
| Roll/Pitch/Yaw | 360° (Roll) 65° (Pitch) 55° (Yaw) |
| Indicating Way | LED indicator, Buzzer indicator and Vibration indicator |
| Illumination Source | Body light source: 2 red LEDs Auxiliary light source: 4 red LEDs |
| Aiming Mode | Laser cross aiming |
| Communication Mode | RS232, USB (Simulated Serial port, Simulated keyboard) |
| Operating Voltage | 5VDC±5% |
| Standby Current | 140 mA |
| Operating Current | 380 mA |
| Weight | 261g (Cable excluded) |
| Dimensions (LxWxH) | 199.0mm×77.0mm×94.0mm |
| Operating Temperature | -10℃ ~ 45℃ |
| Storage Temperature | -30℃ ~ 60℃ |
| Relative Humidity | 5% ~ 95% Non-condensing |
| Drop Resistance | Withstanding multiple impacts of falling from a height of 1.8 meters onto the cement floor (Over 30 times) |
| IP Rating | IP65 |
| ESD Protection | ±20KV Air discharge, ±10KV Direct discharge |
| Ambient Light Immunity | 0 ~ 10000 lux |
| Certifications | CE, RoHS |
| Readable Code Symbologies | 1D, 2D and stacked codes that comply with national and international standards |
| Maximum Reading Accuracy | 1D barcode: 3 mil 2D barcode: 5 mil |

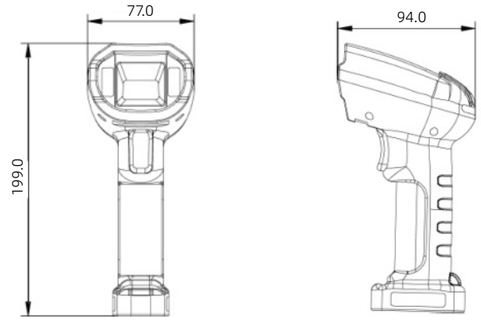
## Standard Model Configuration Table

REC

**HS3260**

| Model | Description |
|---|---|
| HS3260-10-U-02A | Wired handheld, Red LED, USB set, 2-meter Cable |
| HS3260-10-R-02B | Wired, handheld, red LED, Serial port set, cable of 2 meters, 5V 2A power supply |

## Dimensions




Unit（mm）



# HS3150/HS3155

## Universal Handheld Barcode Reader

HS3150 is a universal handheld barcode reader, equipped with a megapixel sensor and efficient processor. It can quickly read label barcodes, screen barcodes and good DPM barcodes. The product has a lightweight appearance and is easy to hold and operate. It is widely applicable in electronics, traceability, medical industries, etc. Meanwhile, wireless Bluetooth communication model HS3155 is provided.

## Product Features

### Equipped With a 1.3 Million Pixels Sensor

The use of high pixel sensors significantly improves reading accuracy (3mil) and working distance compared to the last generation products

### Meet Universal Barcode Reading Scenarios

Reading accuracy can reach 3mil (1D) and 5mil (2D)
Easily read label barcodes and screen barcodes
Can read DPM barcodes such as good laser engraving codes and inkjet codes, etc.

### Humanized Structural Design

Lightweight exterior design for easy hold
Strong and durable, more suitable for long-term and high-frequency use scenarios

### Wireless Transmission and Battery Life

Adopting next-generation Bluetooth transmission technology
Wireless communication distance can reach over 80m (in open space),2500mAh Battery capacity combined with optimized power saving mode enables continuously use for more than 9 hours (triggered once every 2 seconds)

## Applications

- Home Appliances Manufacturing
- Electronics Manufacturing
- Transportation
- Food and Drug Traceability

## Reading Distance

Unit（mm）

| Barcode specifications | Nearest | Farthest |
|---|---|---|
| 3.34mil Code 128 | 40 | 125 |
| 5mil Code 128 | 30 | 164 |
| 10mil Code 128 | 15 | 255 |
| 15mil Code 128 | 15 | 281 |
| 5mil DataMatrix | 38 | 92 |
| 6.67mil DataMatrix | 33 | 137 |
| 10mil DataMatrix | 20 | 198 |
| 15mil DataMatrix | 20 | 227 |

# Technical Specifications

| Model | HS3150 (wired) | HS3155 (wireless BT) |
|---|---|---|
| Sensor | CMOS sensor | |
| Image Resolution | 1280x1024 | |
| Acquisition Speed | Up to 60 frames per second | |
| Angle of View | 44° (Horizontal), 34° (Vertical) | |
| Roll/ Pitch/ Yaw | 360°(Roll), 65°(Pitch), 55°(Yaw) | |
| Reading Direction | Elevation angle ±60° Oblique angle ±55° | |
| Illumination Source | White LED | |
| Aiming Mode | Red LED | |
| Communication Interface | RS232, USB ( Simulated Serial port, Simulated keyboard) | USB (Simulated Serial port, Simulated Keyboard) |
| Operating Voltage | 5VDC±5% | Reader:4.2V ± 10% VDC, Base power supply:5V ± 5% VDC/USB |
| Operating Current | 300mA | |
| Standby Current | 165mA | |
| Battery Specifications | | 3.7V / 2500mAh |
| Battery Endurance | | Above 9 hours (triggered every 2 seconds, decoding over 16000 timesin average) |
| Charging Time | | 6 hours |
| Wireless Signal | | 2.4-2.5 GHz Bandwidth range |
| Communication Distance | | 80m (open),20m (indoor) Support storage |
| Storage Capacity | | 20,000 pcs (13-bit character/pc) |
| Shell Material | PC | |
| Weight | 148g | Reader: 200g Base: 167g (horizontal base type) / 128g (vertical base type) |
| Dimensions (LxWxH) | 163.0mmx69.5mmx106.0mm | Reader: 160.5mmx69.5mmx108.0mm; Communication base: 128.0mmx98.0mmx85.0mm(horizontal); 201.1mmx94.2mmx56.0mm (vertical) |
| Operating Temperature | 0 ~ +45 ℃ | |
| Storage Temperature | -10 ~ +50 ℃ | |
| Relative Humidity | 5% ~ 95% non-condensing | |
| IP Rating | IP54 | |
| Certifications | CE,FCC,RoHS | |
| Ambient Light Immunity | Sunshine: 10000 Lux Incandescent lamp: 6000 Lux | |
| Drop Resistance | Capable of withstanding multiple impacts of falling from a height of 1.2 meters onto a cement floor (allowable deflection of 5°) | |
| Readable Code Symbologies | 1D, 2D and stacked codes that comply with national and international standards | |
| Maximum Reading Accuracy | 1D code: 3mil 2D code: 5mil | |



# Standard Model Configuration Table

REC

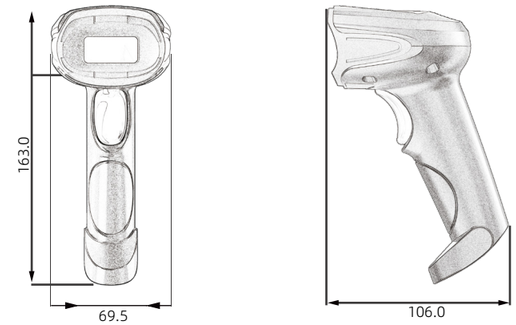
## HS3150/HS3155

| Model | Description |
|---|---|
| HS3150-00-U-02A | handheld wired barcode reader, white LED illumination, USB set, 2-meter cable |
| HS3150-00-R-02B | handheld wired barcode reader, white LED illumination, RS232 set, 2-meter cable, 5V power supply |
| HS3155-02-U-02A | Wireless handheld, white LED, USB set,horizontal communication base,cable of 2 meters |
| HS3155-02-U-02B | Wireless handheld, white LED, USB set, horizontal communication base,cable of 2 meters, 5V power supply |
| HS3155-05-U-02A | Wireless handheld, white LED, USB set, vertical communication base, cable of 2 meters |

# Dimensions

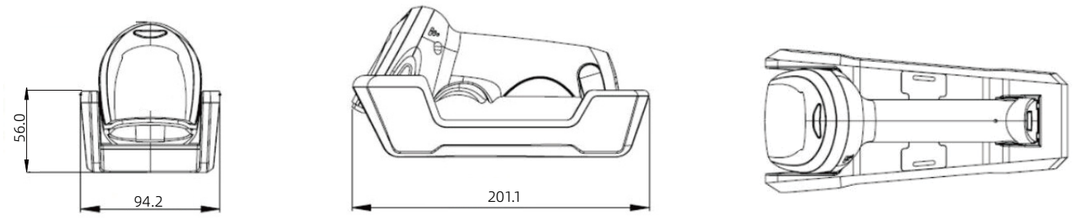
## HS3150

Unit（mm）

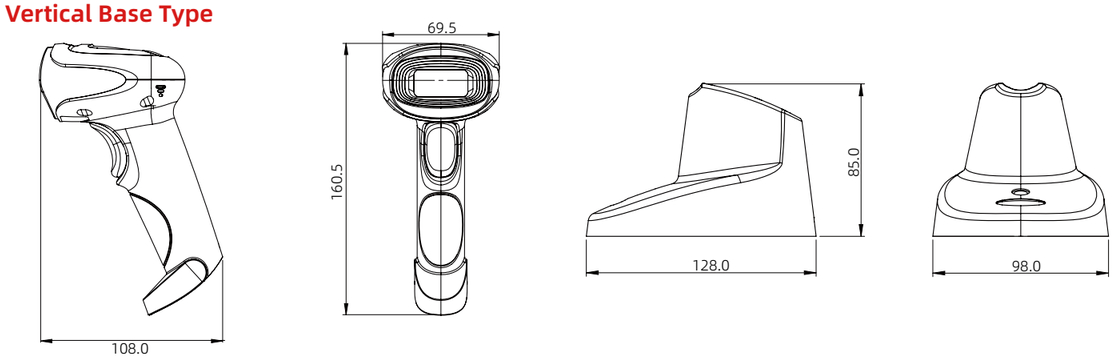



## HS3155
## Horizontal Base Type

Unit（mm）




## HS3155
## Vertical Base Type



# HS3660/HS3665

## Handheld Industrial DPM Reader

HS3660 is an industrial wired handheld barcode reader with superior performance for various DPM (Direct Part Mark) barcodes reading occasions. HS3660 adopts multi-color intelligent switching Area light source, professional image processing and DPM decoding algorithm and industrial grade protection design. It can be used for diverse DPM code reading applications such as reflective, stained, low contrast, small-sized and punching code reading, in the field of automotive components, metal manufacturing industries. The wireless Bluetooth communication model is HS3665.

## Product Features

### Powerful DPM decoding capability

Applicable for challenging DPM barcodes such as reflective, stained, low-contrast and small-sized barcodes;Can be widely used in various DPM code reading applications such as automotive metal components, chip packaging and home appliance assembly, etc.

### Multiple color intelligent switching light source

Provide white point light source, red and blue area light source to handle barcodes on various materials and surfaces (such as reflective, different colors, metal, curved surface, etc.), automatically switch and match the best light source scheme

### Diverse feedback prompts

Equipped with LED light prompts, buzzer prompts and vibration prompts, ensuring timely and accurate code reading feedback in noisy and applicable environments

### Excellent wireless communication performance

Wireless communication transmission distance can reach 80m (in open space),Battery capacity: 2500mAh Optimized power saving mode, with continuous use time of over 9 hours (triggered once every 2 seconds)

## Applications

Home appliances manufacturing

Electronics manufacturing

Automobile manufacturing

Aerospace manufacturing

New energy industry

## Reading Distance

Unit（mm）

| Reading Distance | Nearest | Farthest |
|---|---|---|
| 3.34mil Code 128 | 25 | 123 |
| 5mil Code 128 | 22 | 179 |
| 10mil Code 128 | 6 | 287 |
| 15mil Code 128 | 6 | 384 |
| 5mil DataMatrix | 35 | 103 |
| 6.67mil DataMatrix | 25 | 125 |
| 10mil DataMatrix | 5 | 243 |
| 15mil DataMatrix | 5 | 254 |



## Technical Specifications

| Model | HS3660(wired) | HS3665(wireless Bluetooth) |
|---|---|---|
| Sensor | CMOS sensor | |
| Image Resolution | 1280x1024 | |
| Acquisition Speed | Up to 60 frames per second | |
| Viewing Angle | 44° (Horizontal), 34° (Vertical) | |
| Roll/ Pitch/ Yaw | 360°(Roll), 65°(Pitch), 55°(Yaw) | |
| Reading Direction | Angle of elevation ±60° , Oblique angle ±55° | |
| Illumination | White point light source/Red area light source/Blue area light source | |
| Aiming Mode | Laser aiming | |
| Communication Interface | RS232, USB (simulated Serial port, simulated Keyboard) | |
| Battery Specifications | | 3.7V/2500mAh |
| Battery Life | | Over 9 hours (triggered every 2 seconds, decoding over 16000 times in average) |
| Charging Time | 6.5 hours | |
| Communication Distance | Open: 82m , Indoor : 28m | |
| Storage Capacity | | 13-bit character/pc |
| Operating Voltage | 5VDC±5% | Reader: 4.2VDC±10%<br>Base (power supply): 5VDC±5% |
| Standby Current | 150mA | |
| Operating Current | 310mA | |
| Power Consumption | 1.55W | |
| Shell Material | PC | |
| Weight | 237g | 275g（Reader）,276g（Base） |
| Dimensions (LxWxH) | 191.8mm x 130.2mm x 76.9 mm | Reader: 192mmx130mmx77mm<br>Base: 246mmx100mmx93mm |
| Operating Temperature | 0 ~ +45℃ | |
| Storage Temperature | -10 ~ +50℃ | |
| Relative Humidity | 5% ~ 85% non-condensing | |
| IP Rating | IP67 | |
| Certification | CE,FCC,RoHS | |
| Ambient Light Immunity | Sunshine: 10000 Lux, Incandescent lamp: 6000 Lux, Fluorescent lamp: 2000 Lux | |
| Shock Resistance | Drop Resistance \| Capable of withstanding multiple impacts of falling from a height of 1.2 meters onto a cement floor (allowable deflection of 5°) | |
| Readable Code Symbologies | 1D, 2D and stacked codes that comply with national and international standards | |
| Maximum Reading Accuracy | 1D code: 3mil, 2D code: 4mil | |

## Standard Model Configuration Table

REC

### HS3660 Set

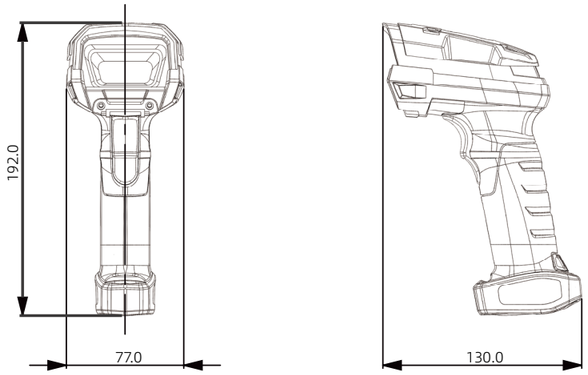
| Model | Description |
|---|---|
| HS3660-30-U-02A | Handheld, Wired, DPM illumination, USB set, 2-meter USB cable |
| HS3660-30-R-02B | Handheld, Wired, DPM illumination, RS232 set, 2-meter Serial port cable, 5V Power supply |

### HS3665 Set

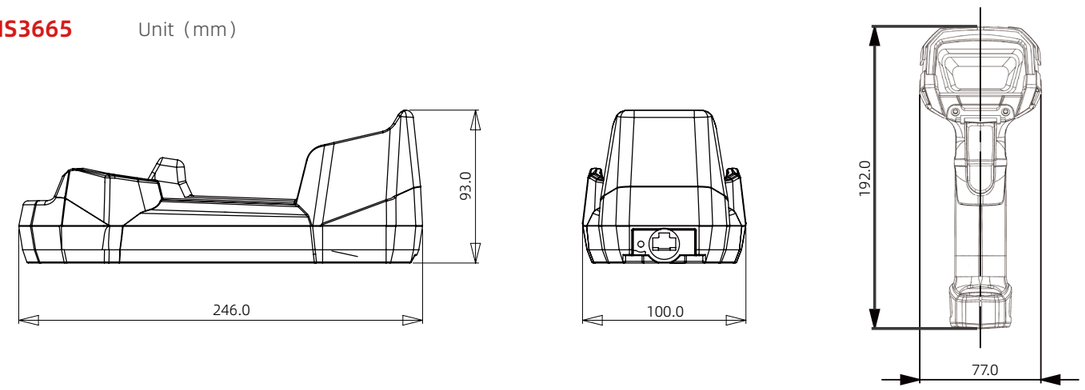
| Model | Specific Description |
|---|---|
| HS3665-32-U-02A | Handheld, Wireless Bluetooth, DPM illumination, USB set, 2-meter USB cable, Communication base |
| HS3665-32-R-02B | Handheld, Wireless Bluetooth, DPM illumination, RS232 set, 2-meter Serial port cable, 5V Power supply, Communication base |

## Dimensions

**HS3660** Unit（mm）




**HS3665** Unit（mm）






# Embedded Barcode Scanner Series

# RV100 Series

Embedded Barcode Scanner

## Product Features

Ultra-small design;Embedded products that are easy to be integrated into equipments

The product size is only: 40.0mmX37.3mmX25.1mm

Support commonly used communication modes;Apply to most equipment integration needs

Support communication modes: Serial port, USB (Simulated Keyboard, Simulated Serial Port); Adaptive interface for different cables (Serial port cable and USB cable)

## Applications

Medical Testing Equipment Integration

Test Instrument Integration

Self-service Terminals Integration

## Reading Distance

Unit（mm）

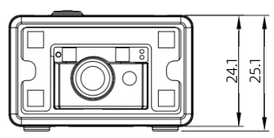
| Barcode Specifications | Nearest | Farthest |
|---|---|---|
| 3.34mil Code 128 | 50 | 110 |
| 5mil Code 128 | 40 | 130 |
| 6.67mil Code 128 | 40 | 140 |
| 10mil Code 128 | 40 | 160 |
| 15mil Code 128 | 40 | 190 |
| 5mil DataMatrix | 40 | 110 |
| 6.67mil DataMatrix | 40 | 120 |
| 10mil DataMatrix | 40 | 150 |
| 15mil DataMatrix | 40 | 160 |

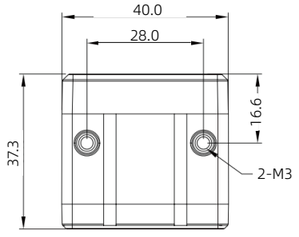
## Technical Specifications

| | |
|---|---|
| Sensor | 1/4 inch CMOS, global shutter |
| Image Resolution | 1280X800 |
| Acquisition Speed | Up to 72 frame/s |
| Focusing Mode | Fixed focus |
| Focal Length | 4mm |
| Viewing Angle | 48°（horizontal） |
| Trigger Mode | Command trigger; I/O trigger; Continuous reading mode; Key trigger; Inductive mode |
| LED Indicator | 3pcs LED indicator lights (power, reading success, reading failure) |
| Illumination Source | Body light source: 2pcs LED lights (high-brightness)<br>Auxiliary light source: 4pcs LED lights (high-brightness) |
| Illumination Source Color | Body light source: red LED, Auxiliary light source: red LED |
| Aiming Mode | Laser cross aiming |
| Laser Safety Level | Class 2 |
| Communication Modes | RS232、USB (simulated Serial port, simulated Keyboard port) |
| Power Supply | 5VDC / USB power supply |
| Power Consumption | Standby: 1.2W Average: 1.75W Peak: 2W |
| Operating Current | Standby: 240mA Average: 350mA Peak: 400mA |
| Number of Input Signal | 1 |
| Number of Output Signal | 2 |
| Shell Material | PC + ABS |
| Weight | 28g (excluding cables) |
| Dimensions (L x W x H) | 40.0mm x 37.3mm x 25.1mm |
| Operating Temperature | -10 ~ 50 ℃ |
| Storage Temperature | -20 ~ 65 ℃ |
| Relative Humidity | 5% ~ 95% non-condensing |
| Vibration Resistance | 10 ~ 55 Hz: double amplitude 2.5 mm / 3 hours in X, Y or Z directions |
| IP Rating | IP54 |
| EMC | EN55032:2015 EN55024:2010 |
| Certifications | CE, RoHS |
| Readable Code Symbologies | 1D, 2D and stacked codes that meet national and international standards |
| Maximum Reading Accuracy | 1D code: 3mil 2D code: 5mil |

## Dimensions

Unit（mm）



# ACCESSORIES

Category: Communication cable with aviation connector

Function description: Ethernet communication; Serial communication; USB communication IO terminals / External power supply

Applicable series: FV6X / FV10X / FV2X0 series

Category: Type-C communication cable

Function description: Serial communication; USB communication IO terminals / External power supply

Applicable series: FV3X series

Category: Dragging-resistant cable

Function description: Ethernet communication; Serial communication IO terminals / External power supply 5 million times dragging in multiple directions

Applicable series: FV6X / FV10X / FV2X0 series



Category: DC power supply

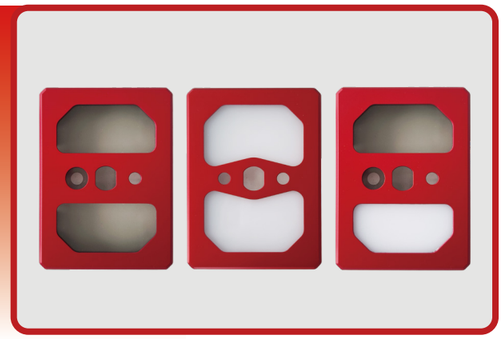
Function description: 5V / 24V Device power supply

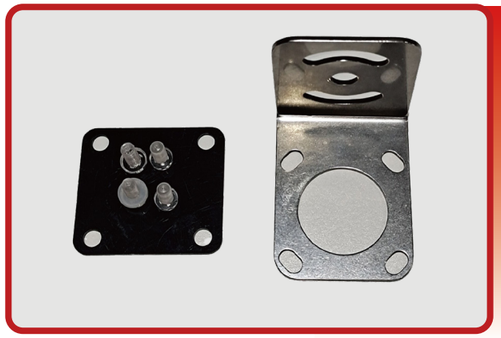
Applicable series: All series

Category: Optical kit

Function description: Polarization kit Atomization kit Polarization and atomization combined kit

Applicable series: FV10X / FV2X0 series





Category: Fixing piece (set) for installation

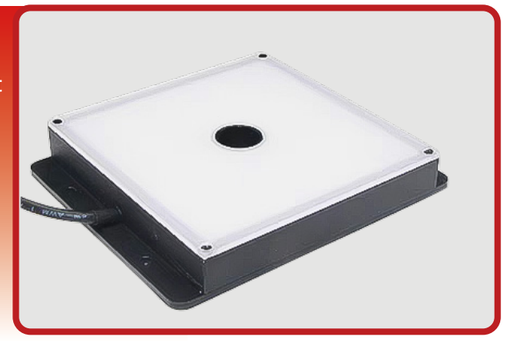
Function description: L-shaped metal fixing plate Insulating gasket Insulating screws

Applicable series: FV series

Category: Integrated illuminant

Function description: Integrated area illuminant

Applicable series: FV10X series



# SOLUTIONS

## Photovoltaic Industry

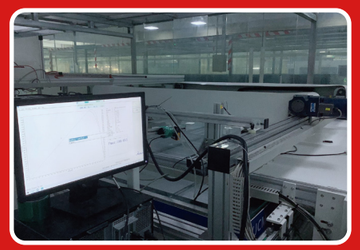
### Applications


String Welding Machine Station


Laminator Station


Framing Station


EL Test

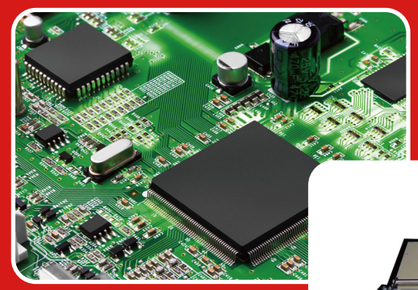

IV Test Station


FI Upper and Lower
Code Reading Station

Recommended series：HS3155/FV6X series/FV10X series/FV2X0 series

## Electronics Industry

### Applications


Circuit Board Manufacturing


Assembly Line


Test Fixture


Automation Equipment Integration

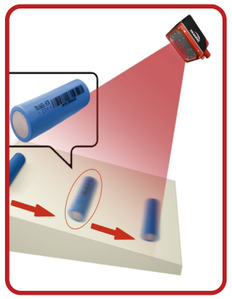

Packaging and Transportation

Recommended series：HS3260/FV3X series/FV6X series/FV10X series

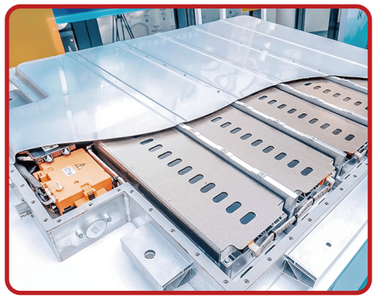
# New Energy Industry

## Applications

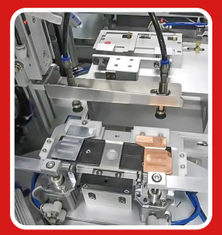
Multiple Barcodes Wide Range Reading



Dynamic Acquisition



Aluminum Shell Battery/Soft Pack Battery /Cylindrical Battery/Special-shaped Batteries, etc., Various Packaging Forms



Tab Welding

Repair Station

Automated Testing

Filling Machine Station

# Technical Proposal

### Atomized illumination

·Improve decoding performance of metal surface patterns and irregular reflections on aluminum shell batteries

Use spot lighting

Use atomization lighting

### Blue LED Illumination

·For the common blue film black barcode used in soft-packed battery packs, the imaging effect is better

Atomized illumination

Blue LED illuminant

### Innovative Structural Design and Accessories

·Rotatable 90° connector for easy wiring, installation and use in limited spaces

·Corrosion-resistant model to avoid corrosion of lenses by corrosive acids and to avoid the degradation of imaging quality

·Provide high-flexible cables (cable standard for robot) to meet multi-directional bending requirements

Rotatable 90° connector

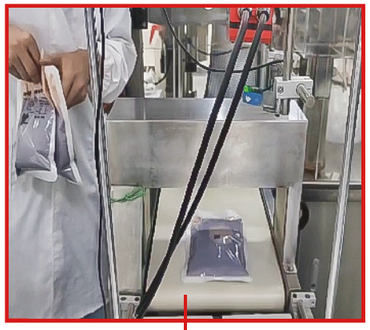

Recommended series：HS3660 series/FV6X series/FV10X series



# Tracing Industry

## Applications

Cosmetic Box Code Reading



Code Reading of Pharmaceutical Packaging Bags

Large Field of View Acquisition

Packaging Bag/Bottle/ Box Code Acquisition

High Speed/ High Frequency Acquisition

Printing Barcodes/Labels/Inkjet Printing/ Laser Engraving Codes

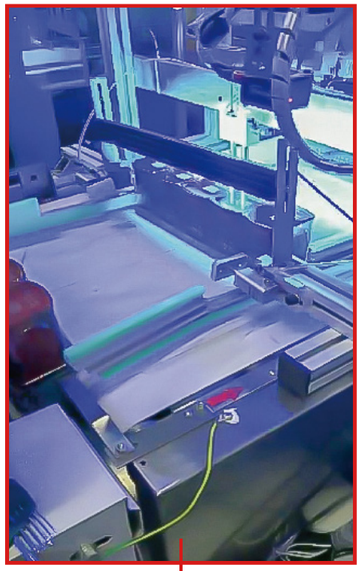
Recommended series：HS3050/HS3155/FV10X series/FV2X0 series

# Automation Equipment Integration

## Applications

- Miniaturized structural design, easy to install in narrow spaces
- Widely used in DPM codes such as laser engraving and inkjet printing codes
- Supports Ethernet protocol, compatible with PLC and automation equipment communication integration

Assembly Line Equipment Integration



Automation Equipment Integration

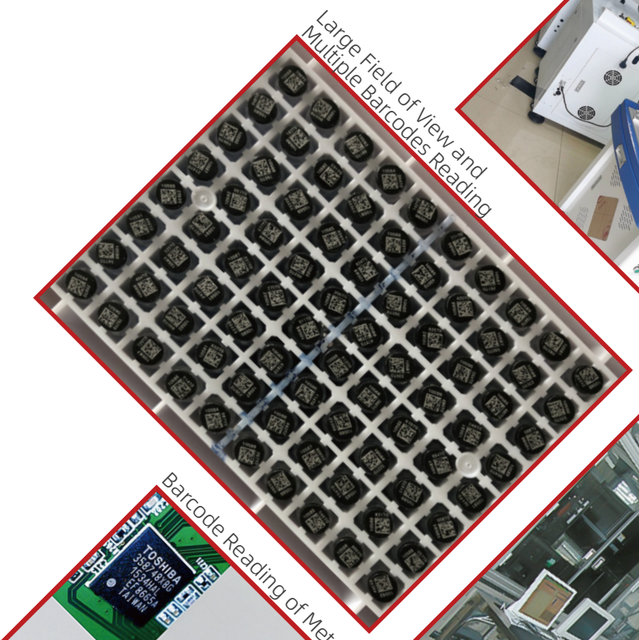
Test Fixture Integration

Recommended series: FV3X series/FV6X series/FV10X series



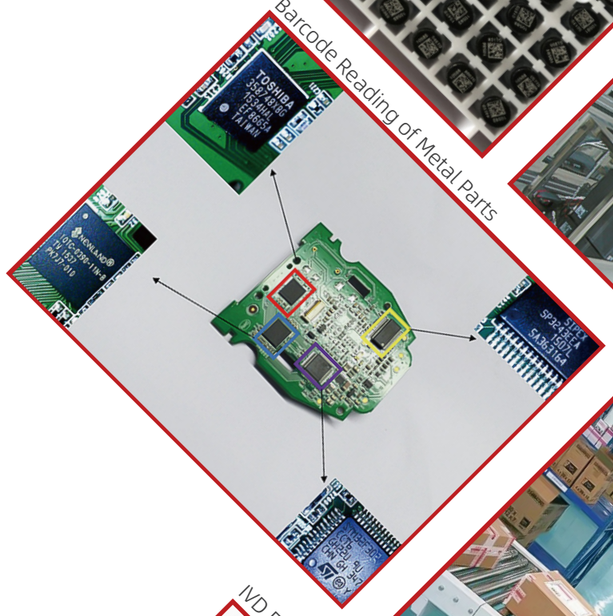
# Other Industries Or Typical Applications

## Applications



Large Field of View and Multiple Barcodes Reading

Labeling/Laser marking/ Inkjet Coding and Other Coding Matching



Barcode Reading of Metal Parts

LCD Screen Code Reading/Vericode Reading

Logistics Production Line

IVD Equipment Matching

# WORRY-FREE SERVICE

**Answers to pre-sales inquiries**

↓

**After procurement of samples, engineers and customer service personnel provide testing support and following-up services**

↓

**Provide our partners with systematic product training and on-site testing services if necessary**

↓

**Warranty period is 12 to 36 months; for every 50 units purchased, 1 unit will be given as a free spare product**

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# CERTIFICATIONS AND HONORS

**14** Years of DeepPloughing in Code Reading Industry

**50+** Products&Solutions

**5K+** Customers

**30W+** Sold Devices

**3** National Honors

**5** Municipal Honors

**50+** Patent Certifications