



# FV61/63L

## Compact Industrial Barcode Scanner

Industrial Barcode Scanner FV61/63L series adopt rich light source combination and various lens configurations 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 scenarios 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.

#### ■ 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.

#### ■ 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.

#### ■ 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.

### Industry Applications



Automated  
Production Line



Integration of  
Test Instruments



Robot Integration



Laser/Inkjet Code and  
Other Coding Match



Automation Equipment  
Integration

## Technical Parameters

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 °C
Storage Temperature	-20 ~ 70 °C
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
Highest Reading Accuracy	FV61/61L Series: 1D code/3mil 2D code/5mil FV63L Series: 1D code/1.8mil 2D code/3 mil

## Reading Distance and Reading Field of Vision

Unit : (mm)

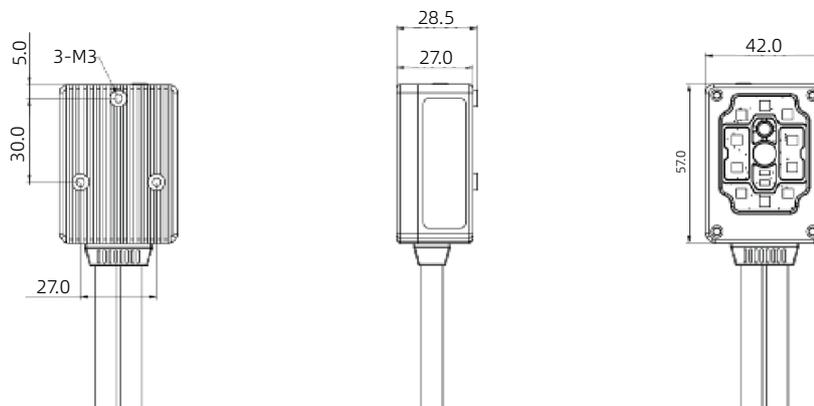
Barcode Specifications	FV61 Series (4mm)		FV63L Series (6mm)		Reading Distance	FV61 Series (4mm)		FV63L Series (6mm)	
	Nearest	Farthest	Nearest	Farthest		X-axis visual field	Y-axis visual field	X-axis visual field	Y-axis visual field
3.34mil Code 128	45	122	45	160	50	43	28	31	22
5mil Code 128	40	170	40	240					
6.67mil Code 128	28	220	40	330					
10mil Code 128	28	260	35	490	100	91	57	66	42
15mil Code 128	35	339	45	730					
20mil Code 128	45	430	55	930					
3.34mil DataMatrix	NA	NA	60	100	150	128	81	99	63
5mil DataMatrix	57	85	50	105					
6.67mil DataMatrix	40	115	43	170					
10mil DataMatrix	32	188	40	255	200	174	110	133	82
15mil DataMatrix	30	230	35	375					
20mil DataMatrix	30	312	40	480					
					300	251	163	203	128

## Standard Models Configuration Table

	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	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-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	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)



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