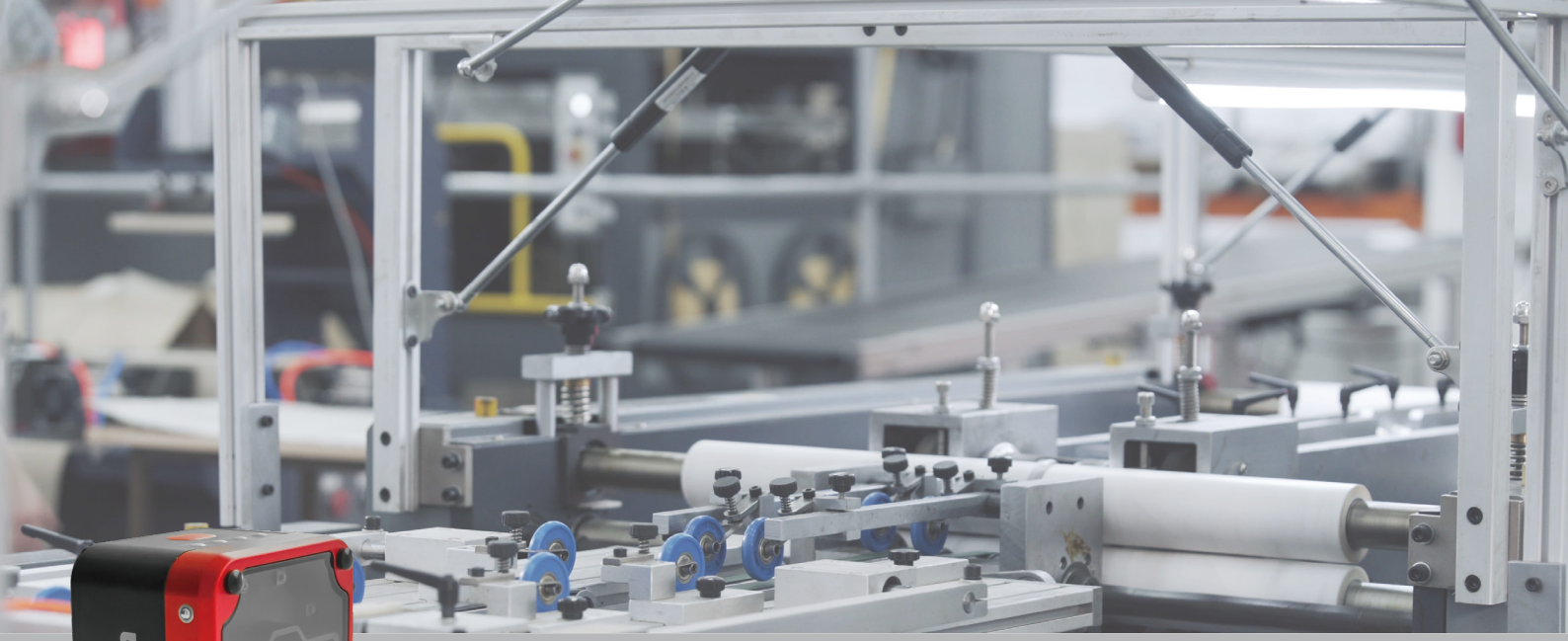


FV104 v2.0

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 Units 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

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

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

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.

Industry Applications

- Device integration
- Electronics manufacturing
- Automobile manufacturing
- Product traceability
- Solar energy industry
- Laser marking and ink-jet marking

Technical Parameters

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)
Trigger 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 Colour	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
Certification	CE, RoHS, etc.
Readable Code Symbologies	1D, 2D and stacking codes that meet national and international standards
Maximum Reading Accuracy	1D code: 1.6 mil 2D code: 2 mil

Reading Distance and Reading Field of Vision

Unit : (mm)

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

Mounting 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

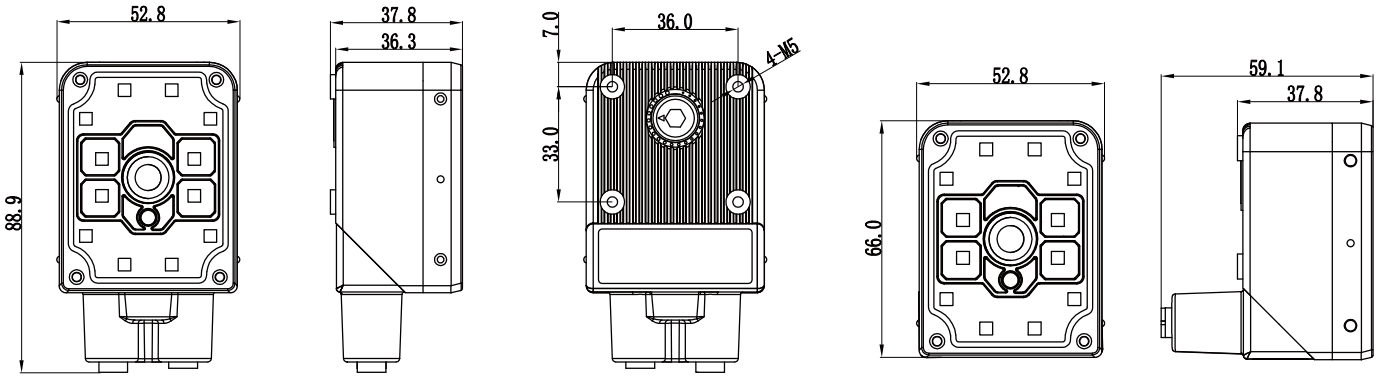
Standard Models Configuration Table

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



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