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

1920 * 1080 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%

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

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

Industry Applications

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

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 indication); 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 Illuminationr	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: RS232	
Power Supply	20-30 VDC	
Power Consumption	Standby: 3.4W, Peak: 19.2W	Standby: 3.4W, Peak: 30W
Number of Input Signals	3	
Type of Input Signal	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 (LxWxH)	111.5mmx60.0mmx54.5mm	131.0mmx106.0mmx59.0mm
Operating Temperature	0 ~ 55℃	
Storage Temperature	-20 ~ 70℃	
Relative Humidity	0~95% non-condensing	
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 barcodes meet national and international standards	
Maximum Reading Accuracy	FV2X0N / FV2X0S 1D code: 1.3mil, 2D code: 2mil, FV2X0L 1D code: 0.67mil, 2D code: 1 mil	

Reading Distance

Unit：(mm)

Barcode Specifications	FV220N/FV260N 6mm focal length lens		FV220S/FV260S 12mm focal length lens		FV220L/FV260L 16mm focal length lens	
	Nearest	Farthest	Nearest	Farthest	Nearest	Farthest
5mil Code128	40	245	65	522	70	772
6.67mil Code128	40	327	65	697	70	1030
10mil Code 128	40	491	65	1045	70	1543
15mil Code 128	40	736	65	1568	80	2315
5mil DataMatrix	40	134	65	285	70	421
6.67mil DataMatrix	40	178	65	380	70	562
10mil DataMatrix	40	268	65	570	70	842
15mil DataMatrix	40	401	65	855	70	1163

Reading Distance	FV220N/FV260N 6mm focal length lens		FV220S/FV260S 12mm focal length lens		FV220L/FV260L 16mm focal length lens	
	X-axis Visual Field	Y-axis Visual Field	X-axis Visual Field	Y-axis Visual Field	X-axis Visual Field	Y-axis Visual Field
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

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

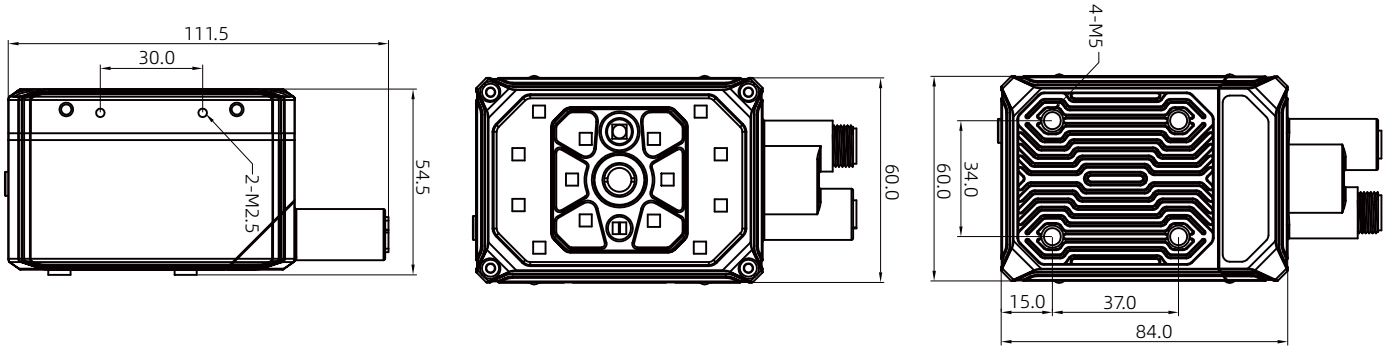
FV220 Standard Illumination Model			
Model	Lens Type	Light Source Type	Light Source Description
FV260N-1110	6mm (standard field of view) liquid lens	28pcs LEDs Enhanced light source	Red, non-polarized light source
FV260N-1210	6mm (standard field of view) liquid lens	28pcs LEDs Enhanced light source	Red, 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

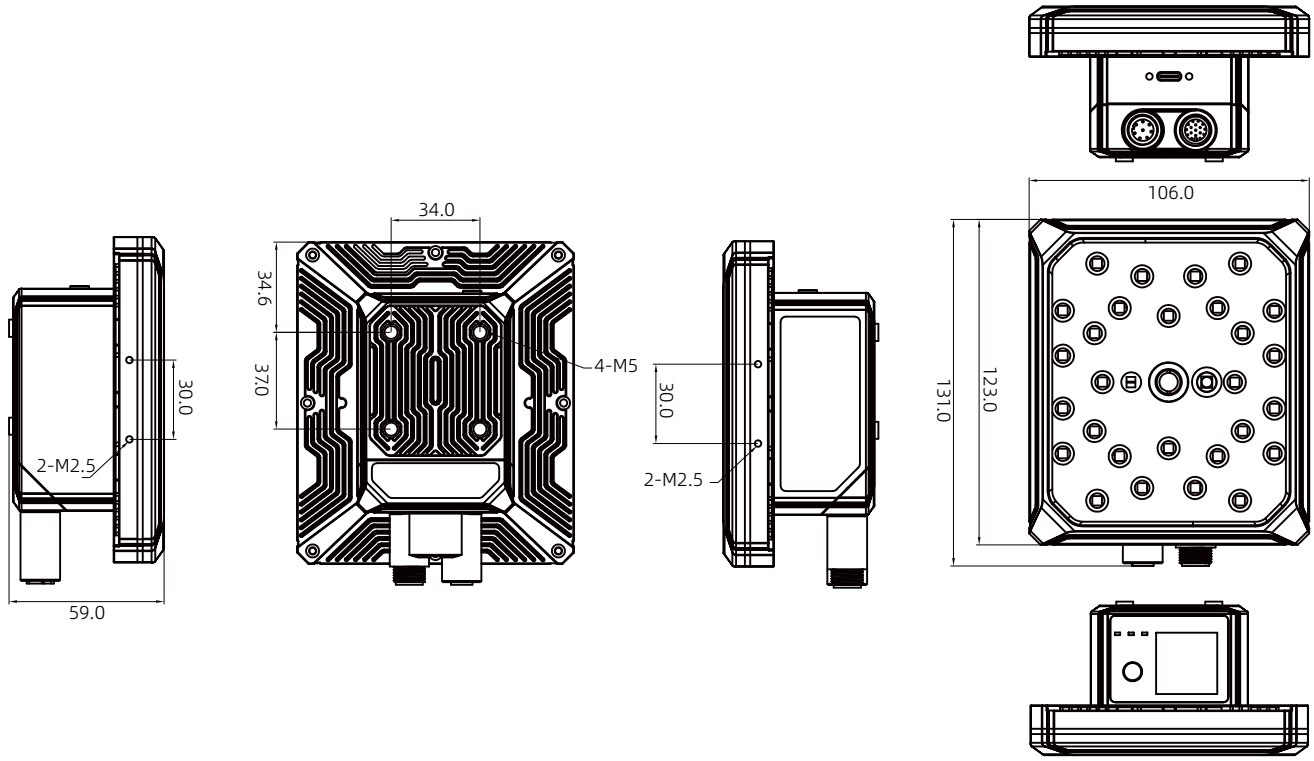
Dimensions

Unit : (mm)

FV220



FV260



CE RoHS

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