

Ultra-Wide 20 MP AI Code Reader

[VN-2000]

- 5 / 8 / 20 MP image resolution option
- 100 to 2000 mm installation distance
- Capture up to 300 codes in a single FOV
- 16 LEDS, 6 sets of individual controlled light source



Highest image resolution

Equipped with 5 / 8 / 20 MP selection, high performance image sensor, the VN-2000 code reader meets large field of view requirements.

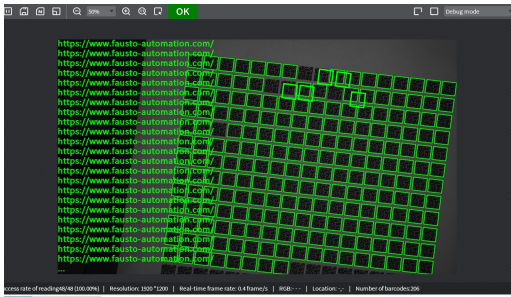
Read up to 300 codes in FOV

With the ultra-wide field of view, user can add up to 300 codes into the FOV. Delivering lightning-fast, high-precision scanning for maximum productivity.

5/8/20 MEGAPIXEL VARIANT OPTION

Model	Pixels	Largest FOV
VN-2000 (5 MP)	2448 x 2048	1677 x 1403
VN-2000 (8 MP)	3840 x 2160	1920 x 1080
VN-2000 (20 MP)	5472 x 3648	3283 x 2189

300 CODE READING AT ONCE

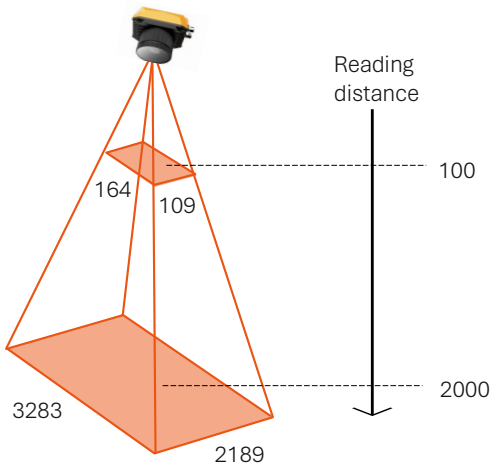
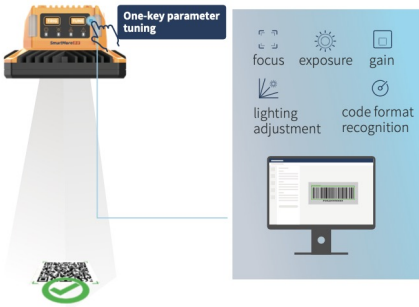


Easy parameter tuning setting

No more complicated exposure and focus settings due to reflection. With the VN-2000 series, user can now complete the parameter adjustment with just one-click away.

Largest Field of View

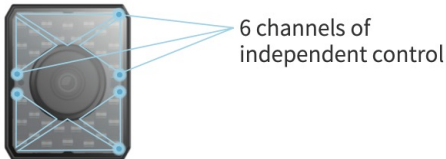
Reading multiple codes on PCB all at once within the field of view of the code reader, even at low-lighting environment.



Flexible lighting system

The VN-2000 provides red/white light sources controllable LED design, supporting up to 6 independently controlled light sources.

To address specific reading requirements such as specific angle irradiation and reflection.



Overview

Code Reader

Handheld Reader

Vision Sensor

Vision System

Fiberoptic Sensor

Photoelectric Sensor

RGB Colour Sensor

Proximity Sensor

Ultrasonic Sensor

Safety Curtain

Ionizer

Reading Range

unit: mm

VN-2000 5 MP

8 mm lens

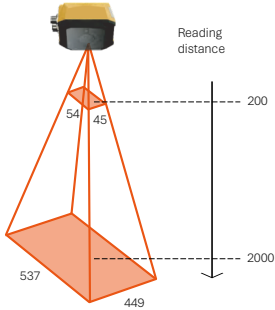
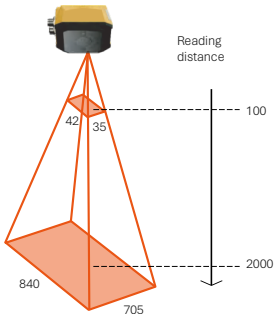
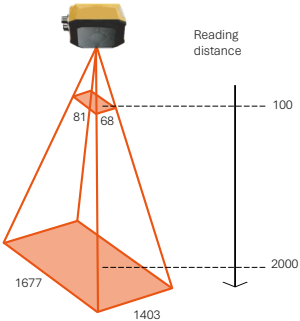
Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	81	68	0.040	0.066
200	162	135	0.079	0.132
300	242	203	0.119	0.198
400	323	270	0.158	0.264
500	404	338	0.198	0.330
600	485	406	0.238	0.396
700	566	473	0.277	0.462
800	647	541	0.317	0.529
900	727	608	0.356	0.594
1000	808	676	0.396	0.660
1200	970	811	0.475	0.792
1500	1212	1014	0.594	0.990
1800	1509	1263	0.740	1.233
2000	1677	1403	0.822	1.370

16 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	42	35	0.021	0.034
200	84	70	0.041	0.069
300	126	105	0.062	0.103
400	168	140	0.082	0.137
500	210	175	0.124	0.172
600	252	210	0.144	0.207
700	294	245	0.164	0.242
800	336	280	0.185	0.277
900	378	315	0.205	0.312
1000	420	350	0.247	0.347
1200	504	425	0.287	0.417
1500	630	530	0.347	0.522
1800	756	635	0.407	0.627
2000	840	705	0.447	0.697

25 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
200	54	45	0.026	0.044
300	80	67	0.039	0.065
400	107	90	0.052	0.087
500	134	112	0.066	0.109
600	161	135	0.079	0.132
700	188	157	0.092	0.154
800	215	180	0.105	0.176
900	241	202	0.118	0.197
1000	268	224	0.131	0.219
1200	322	269	0.158	0.263
1500	402	337	0.197	0.328
1800	483	404	0.237	0.395
2000	537	449	0.263	0.439



Code Reader

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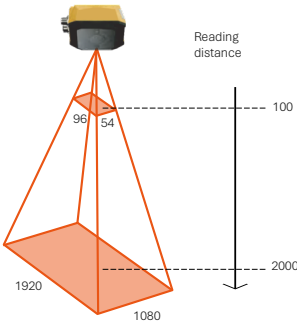
Safety Curtain

Ionizer

VN-2000 8 MP

8 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	96	54	0.030	0.050
200	192	108	0.060	0.100
300	288	162	0.090	0.150
400	384	216	0.120	0.200
500	480	270	0.150	0.250
600	576	324	0.180	0.300
700	672	378	0.210	0.350
800	768	432	0.240	0.400
900	864	486	0.270	0.450
1000	960	540	0.300	0.500
1200	1152	648	0.360	0.600
1500	1440	810	0.450	0.750
1800	1728	972	0.540	0.900
2000	1920	1080	0.600	1.000



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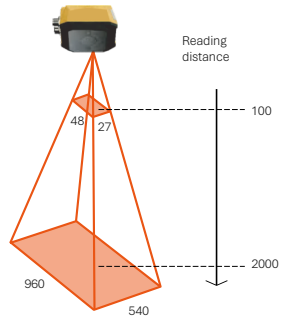
Ultrasonic Sensor

Safety Curtain

Ionizer

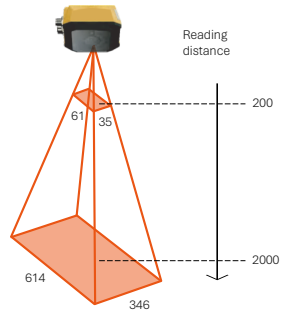
16 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	48	27	0.015	0.025
200	96	54	0.030	0.050
300	144	81	0.045	0.075
400	192	108	0.060	0.100
500	240	135	0.075	0.125
600	288	162	0.090	0.150
700	336	189	0.105	0.175
800	384	216	0.120	0.200
900	432	243	0.135	0.225
1000	480	270	0.150	0.250
1200	576	324	0.180	0.300
1500	720	405	0.225	0.375
1800	864	486	0.270	0.450
2000	960	540	0.300	0.500



25 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
200	61	35	0.019	0.032
300	92	52	0.029	0.048
400	123	69	0.038	0.064
500	154	86	0.048	0.080
600	184	104	0.058	0.096
700	215	121	0.067	0.112
800	246	138	0.077	0.128
900	276	156	0.086	0.144
1000	307	173	0.096	0.160
1200	369	207	0.115	0.192
1500	461	259	0.144	0.240
1800	553	311	0.173	0.288
2000	614	346	0.192	0.320



Reading Range

unit: mm

8 mm lens

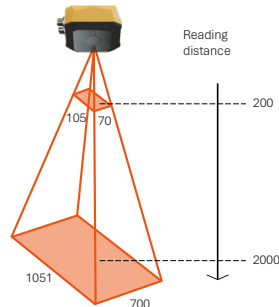
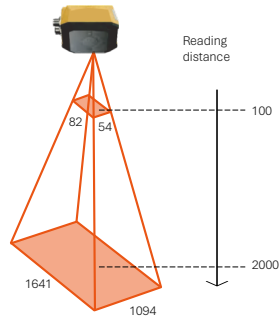
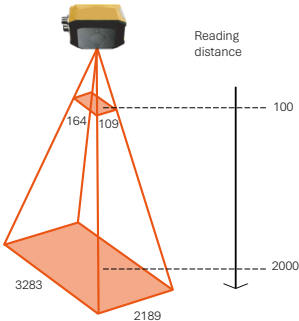
Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	164	109	0.036	0.060
200	382	219	0.084	0.140
300	492	328	0.108	0.180
400	657	438	0.144	0.240
500	821	547	0.180	0.300
600	985	657	0.216	0.360
700	1149	766	0.252	0.420
800	1313	876	0.288	0.480
900	1477	985	0.324	0.540
1000	1642	1094	0.360	0.600
1200	1979	1313	0.434	0.723
1500	2462	1642	0.540	0.900
1800	2955	1970	0.648	1.080
2000	3283	2189	0.720	1.200

16 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
100	82	54	0.018	0.030
200	164	109	0.036	0.060
300	264	164	0.058	0.096
400	328	219	0.072	0.120
500	410	274	0.090	0.150
600	492	328	0.108	0.180
700	575	383	0.126	0.210
800	657	438	0.144	0.240
900	739	492	0.162	0.270
1000	821	547	0.180	0.300
1200	985	657	0.216	0.360
1500	1231	821	0.270	0.450
1800	1477	985	0.324	0.540
2000	1641	1094	0.360	0.600

25 mm lens

Reading Range	Width	Height	Minimum Resolution	
			Barcode	2D
200	105	70	0.023	0.038
300	158	105	0.035	0.058
400	210	140	0.046	0.077
500	263	175	0.058	0.096
600	315	210	0.069	0.115
700	368	245	0.081	0.135
800	420	280	0.092	0.154
900	473	315	0.104	0.173
1000	525	350	0.115	0.192
1200	630	420	0.138	0.230
1500	788	525	0.173	0.288
1800	946	630	0.207	0.346
2000	1051	700	0.230	0.384



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VN-2000 Series Variant

Model	Light Source	Megapixel	Lens	Focus Mode
VN-2000-111	White	5 MP (2448 x 2048)	8 mm	Auto
VN-2000-112	Red	5 MP (2448 x 2048)	8 mm	
VN-2000-121	White	5 MP (2448 x 2048)	16 mm	
VN-2000-122	Red	5 MP (2448 x 2048)	16 mm	
VN-2000-131	White	5 MP (2448 x 2048)	25 mm	
VN-2000-132	Red	5 MP (2448 x 2048)	25 mm	
VN-2000-211	White	8 MP (3840 x 2160)	8 mm	
VN-2000-212	Red	8 MP (3840 x 2160)	8 mm	
VN-2000-221	White	8 MP (3840 x 2160)	16 mm	
VN-2000-222	Red	8 MP (3840 x 2160)	16 mm	
VN-2000-231	White	8 MP (3840 x 2160)	25 mm	
VN-2000-232	Red	8 MP (3840 x 2160)	25 mm	
VN-2000-311	White	20 MP (5472 x 3648)	8 mm	
VN-2000-312	Red	20 MP (5472 x 3648)	8 mm	
VN-2000-321	White	20 MP (5472 x 3648)	16 mm	
VN-2000-322	Red	20 MP (5472 x 3648)	16 mm	
VN-2000-331	White	20 MP (5472 x 3648)	25 mm	
VN-2000-332	Red	20 MP (5472 x 3648)	25 mm	

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Accessories Lineup

Main unit



Code Reader
VN-2000

Cable



Control Cable (RS232)
3 m: M12-12PIN-PC-3M-F-B
5 m: M12-12PIN-PC-5M-F-B
10 m: M12-12PIN-PC-10M-F-B

Ethernet Cable



Ethernet Cable (RJ45)
3 m: M12-8PIN-3M
5 m: M12-8PIN-5M
10 m: M12-8PIN-10M

Power Supply



24V Power Adapter
FG-168

Bracket & Screw



L Shape Installation Bracket
FG-2001

Software

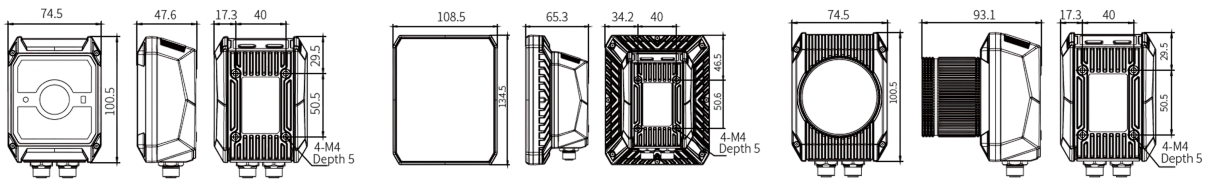


Barcode Scanner Software
FG-S01

Specifications

Model			VN-2000 (5 megapixels)	VN-2000 (8 megapixels)	VN-2000 (20 megapixels)
Receiver	Sensor		CMOS image sensor		
	Number of pixels		2448 x 2048	3840 x 2160	5472 x 3648
	Focus		Mechanical autofocus		
	Frame Rate		30	30	15
	Colour		Black and White		
	Pixel Size		2.74 µm x 2.74 µm	2.0 µm x 2.0 µm	2.4 µm x 2.4 µm
	Sensor Size		1/1.8"	1/1.8"	1"
Emitter	Illumination light source		High intensity red / white LED		
	Pointer light source		1 Green LED		
Reading	Symbology	2D	DataMatrix, QR Code, Mircro QR, PDF417, MicroPDF417		
		Barcode	Code 39, Code 93, Code 128, EAN-8, EAN-13, Interleaved 2 of 5, UPC, Pharmacode		
	Minimum Resolution	2D	0.034 mm	0.015 mm	0.018 mm
		Barcode	0.021 mm	0.025 mm	0.030 mm
	Focal lens		8 / 16 / 25 mm		
	Reading distance		100 to 2,000 mm (@8 mm), 100 to 2,000 mm (@16 mm), 200 to 2,000 mm (@25 mm)		
I/O	Number of control inputs		2		
	Number of control outputs		3		
	Supported protocol	Ethernet	TCP / IP, Ethernet / IP, Modbus, Profinet		
		Serial	RS-232C		
Environment Resistance	Enclosure rating		IP67		
	Surrounding temperature		0 to +45°C		
	Ambient storage temperature		-20 to +70°C		
	Relative humidity		5 to 95% RH (No condensation)		
Rating	Power consumption		15 W		
	Power supply voltage		24 VDC		
Weight			Approx. 400 g		
Dimension			100.5 x 74.5 x 47.6mm		

Dimensions



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