

MATRIX 220™



Matrix 220是一款结构超级紧凑的工业图像式条码阅读器，拥有一流的灵活性和卓越性能。它是电子、汽车、包装和文件处理应用的理想之选。

Matrix 220读码器采用120万像素的高分辨率成像器和新型多核图像处理平台，具有超凡性能。

它采用了创新性的光源解决方案，集成了灵活多样的光源选项，实现了优异的DPM码（直接部件标识）阅读能力。Matrix 220可在单一型号中提供偏光和漫射光选项，能够在任何类型的表面上实现最佳照明。白光和红光型号不仅性能卓越，还拥有广泛的应用范围。电子聚焦控制可以轻松实现远程切换不同的作业配置，拥有极高的使用灵活性。

Matrix 220读码器还拥有红绿点技术、X-Press™按钮、直观的人机界面和DL.CODE™配置软件，十分易于使用；同时配备自动设置模式，可轻松快速读取条码。前盖具有防静电（ESD）和激光防护（YAG）性能，不仅增强了产品灵活性，还减少了型号数量、简化了库存管理。

它还具有IP67和IP65外壳防护等级，可在-10至50°C / 14至122°F的温度范围内工作，确保制造业应用的最佳质量和稳定性。得益于以太网供电（PoE）连接、板载PROFINET / IO和EtherNet/IP工业现场总线，Matrix 220读码器可提供经济高效的通信功能。

凭借其出色的性能，Matrix 220读码器在得利捷产品组合中拥有极高的性价比。



亮点

- 超紧凑外形和旋转式连接器，可在狭小空间内进行轻松集成和安装
- 工业级电子聚焦，提供卓越的读取灵活性
- 新型多功能DPM光源：同时集成了普通光源、漫射光源和偏光镜功能，可满足众多应用需求，并具有极强的DPM读取性能
- 新型多核图像处理平台，能够读取最小2mils分辨率条码，适用于高速应用
- 硬件加速可加速算法并提高解码能力
- 以太网供电版本，板载PROFINET/IO和EtherNet/IP，以提供工业连接
- 拥有IP65和IP67外壳防护等级，适用于恶劣环境，或-10至50°C/ 14至122°F的工作温度；具有适合机器人应用的新型柔性电缆
- 通过前盖添加附件，可实现防静电（ESD）和激光防护（YAG）功能，提供极高的灵活性并优化库存

应用

电子产品

- 跟踪和追踪电路板制造
- 电子元件（如芯片）
- 电子产品追踪
- 读取DPM条形码（对于塑料、玻璃、金属表面）

汽车

- DPM条码验证
- 生产控制
- 零件和组件可追溯性

包装

- 初级包装条形码读取
- 包装可追溯

餐饮

文件处理

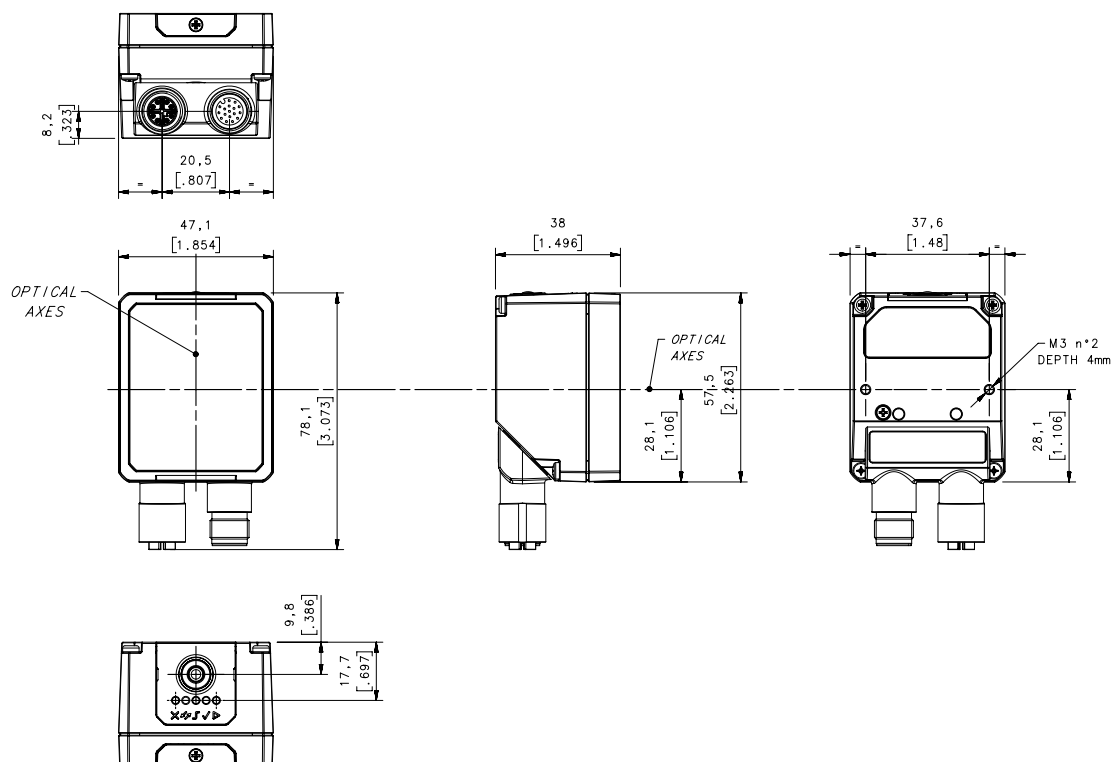
技术参数

	Standard Model	Direct Part Marking Model
Dimensions	78mm x 47mm x 38mm (3.07 x 1.85 x 1.50 in) Connector at 0° 57mm x 47mm x 58mm (2.63 x 1.85 x 2.30 in) Connector at 90°	
Weight	173 gr (6,1 oz)	
Case Material	Aluminium case and plastic protective window cover	
Operating Temperature	-10 to 50°C (14 to 122 °F)	
Storage Temperature	-20 to 70 °C (-4 to 158 °F)	
Protection Class	IP65, IP67	
Sulfur gas resistance	Available for all the models	
ESD Safe	YES, available as front cover accessory	
YAG Laser Protection	YES, available as front cover accessory	
ESD Safe and YAG Laser Protection	YES, available as front cover accessory	
Flexible Cables	YES, available as accessories	
Power Supply	All models except PoE: 10 VDC to 30 VDC PoE models: 48 VDC	
Max Power Consumption	All models except PoE: 4,2 Watt (10 VDC to 30 VDC) PoE models: 4,8 Watt (48 VDC)	
Sensor	Image resolution 1280 x 960 (1.2 megapixel) - 1/3" CMOS global shutter	
Frame Rate	45 frames/s	
Optical Focus Control	Electronic focus control	
Optical Models/Viewing Angles	7 mm (38,3°), 12 mm (24,1°)	
Reading Range	STD-W & STD-W HP Minimum: 40 mm Maximum: 400 mm (7 mm lens), 600 mm (12 mm lens)	DPM-R & DPM-B Minimum: 40 mm Maximum: 300 mm DPM-R HP Minimum: 40 mm Maximum: 400 mm (7 mm lens), 600 mm (12 mm lens)
Illumination	White light White high power light	Red light with polarizer and diffuser Red high power light with polarizer Blue light with polarizer and diffuser
Aiming System	2 Red Aimer LEDs	
Polarizing Filter	NO	YES embedded
High Dynamic Range (HDR)	Available for all the models	
Readable Symbolologies	1D Codes: all standard 1 dimensional symbolologies 2D Codes: Data Matrix, QR Code, Micro QR, Maxicode, Aztec, Dot code Postal Codes: Royal Mail, Japan Post, Planet, Postnet and many more Digimarc Barcode: DWCODE™	
Code Quality Metrics	1D CQ Standard: ISO/IEC 15416 2D CQ Standard: ISO/IEC 16022/18004, ISO/IEC 29158 (AIM-DPM), ISO/IEC 15415	
Embedded Communication Interfaces	All models except PoE: - Ethernet 10/100 Mbit/s: TCP/IP, UDP, FTP and Fieldbus PROFINET IO, Ethernet IP, Modbus TCP - Serial RS-232/RS422FD up to 115.2 Kbit/s + Serial Aux RS-232 - OPC UA PoE models: - Ethernet 10/100 Mbit/s PoE Mode A and Mode B: TCP/IP, UDP, FTP and Fieldbus PROFINET IO, Ethernet IP, Modbus TCP - Serial Aux RS-232 - OPC UA	
Reader Networking	Datalogic ID-NET™	
Connectivity Modes	Pass Through, Master/Slave, Ethernet point to point	
Digital Inputs	All models except PoE: 2 inputs opto-coupled and polarity insensitive PoE models: 1 input opto-coupled and polarity insensitive	
Digital Outputs	3 Outputs (not available on PoE models): Configurable NPN, PNP, PP short-circuit protected Using CBX the first 2 outputs are opto-coupled	
User Interface	X-PRESS™ Human Machine Interface Beeper, Push Button, 7 LEDs (Status, Communication , Trigger, Good Read, Ready, Power on, Network) Green spot and Red spot LEDs Web Monitoring Interface	
Device Programming	DL.CODE™ Windows-based software (programming via Ethernet or Serial Interface) with Javascript output formatter Host Mode programming X-PRESS™	

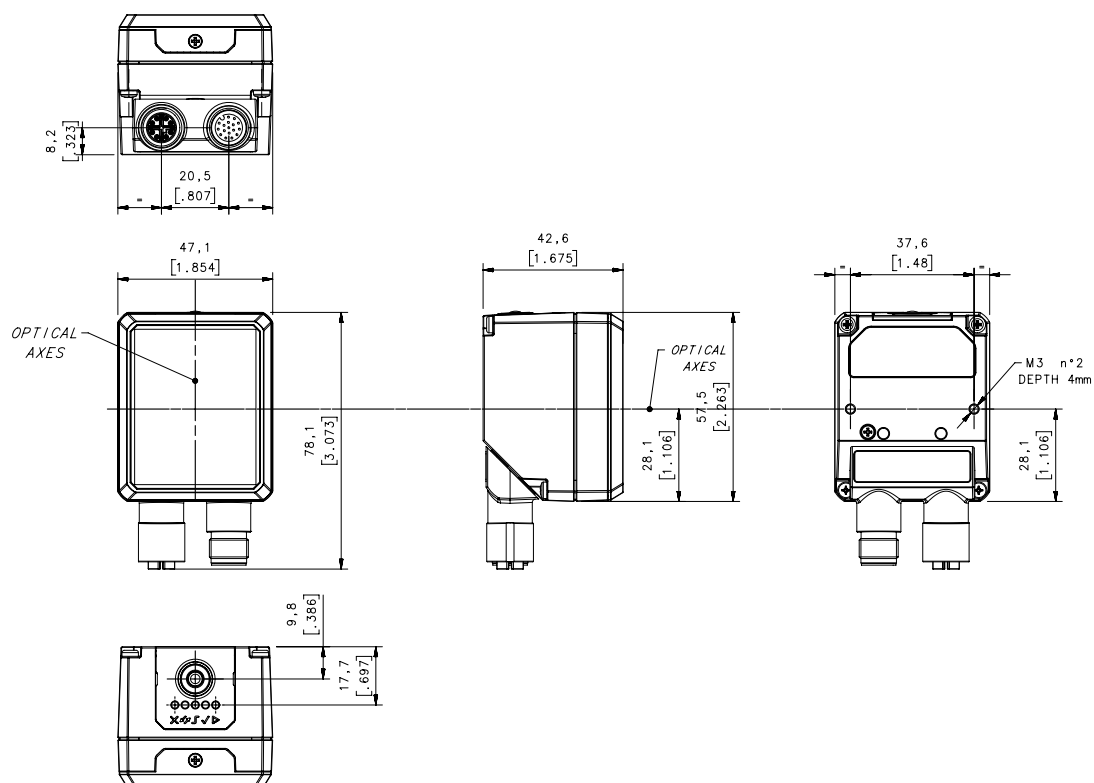
尺寸

Dimensions in mm

MATRIX 220 – 接头平直



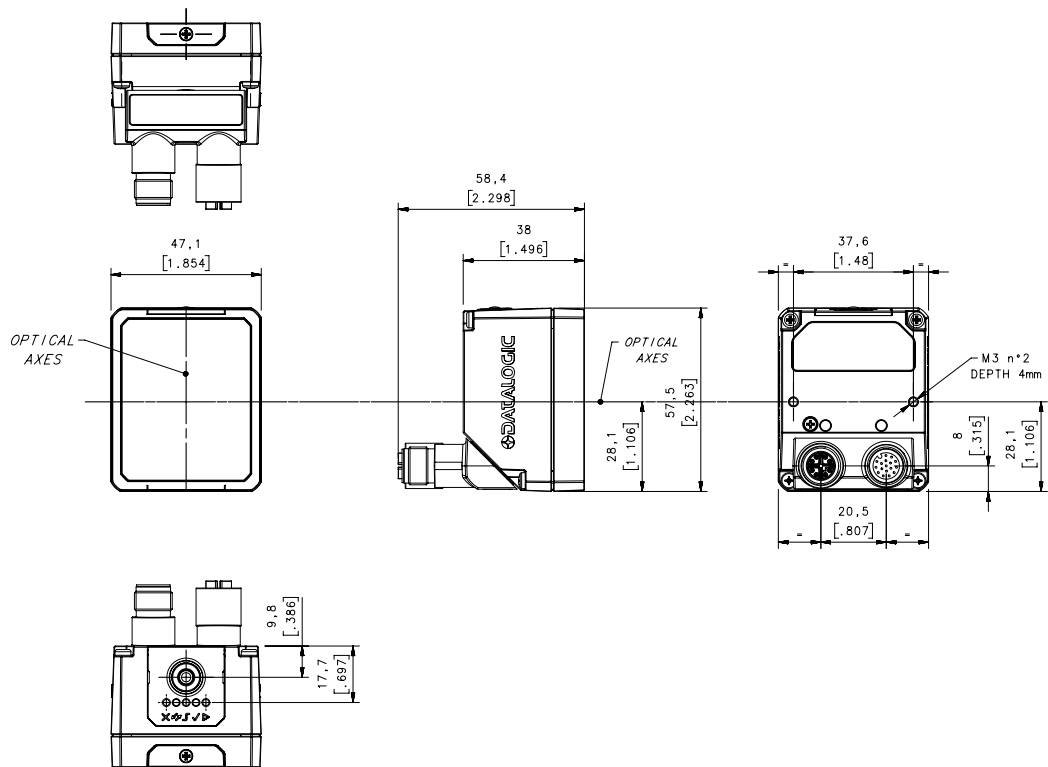
MATRIX 220 – 接头平直加ESD/YAG防护盖



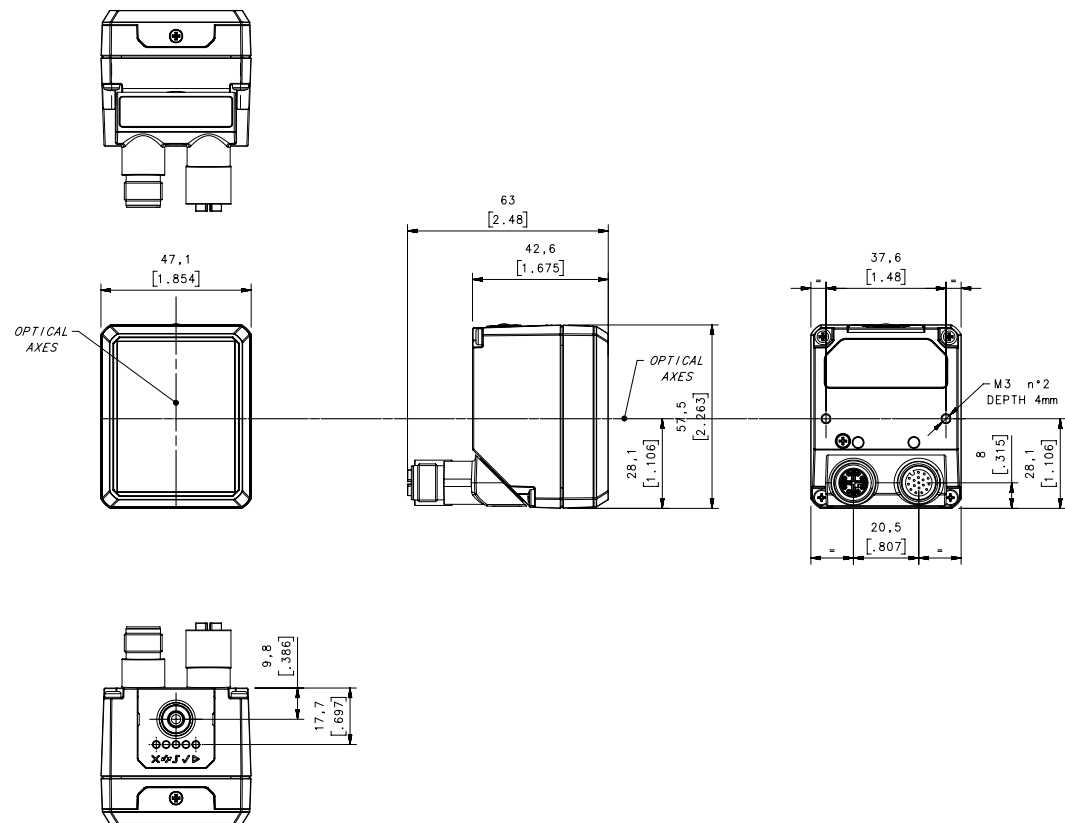
DIMENSIONS

Dimensions in mm

MATRIX 220 - 90° CONNECTORS



MATRIX 220 - 90° CONNECTORS & ESD/YAG COVER



MODELS

P/N	DESCRIPTION	OPTICAL MODELS		ILLUMINATORS						CONNECTORS	
		7 mm	12 mm	STD-WHITE	DPM-RED	DPM-BLUE	STD-WHITE-HP	STD-RED-HP	DPM-RED-HP	M12 17P + ETH	M12 5P + ETH POE
937900000	MATRIX 220 352-010 1.2MP STD-W 7MM	X		X						X	
937900001	MATRIX 220 355-010 1.2MP STD-W 12MM		X	X						X	
937900002	MATRIX 220 352-040 1.2MP STD-W 7MM POE	X		X							X
937900003	MATRIX 220 355-040 1.2MP STD-W 12MM POE		X	X							X
937900004	MATRIX 220 382-010 1.2MP DPM-R 7MM	X			X					X	
937900005	MATRIX 220 385-010 1.2MP DPM-R 12MM		X		X					X	
937900006	MATRIX 220 382-040 1.2MP DPM-R 7MM POE	X			X						X
937900007	MATRIX 220 385-040 1.2MP DPM-R 12MM POE		X		X						X
937900008	MATRIX 220 345-010 1.2MP STD-W 12MM HP		X				X			X	
937900009	MATRIX 220 305-010 1.2MP DPM-R 12MM HP		X						X	X	
937900010	MATRIX 220 302-010 1.2MP DPM-R 7MM HP	X							X	X	
937900011	MATRIX 220 392-010 1.2MP DPM-B 7MM	X				X				X	
937900012	MATRIX 220 395-010 1.2MP DPM-B 12MM		X			X				X	
937900013	MATRIX 220 392-040 1.2MP DPM-B 7MM POE	X				X					X
937900014	MATRIX 220 395-040 1.2MP DPM-B 12MM POE		X			X					X
937900017	MATRIX 220 322-01A 1.2MP STD-R 7MM HP	X						X		X	
937900018	MATRIX 220 325-01A 1.2MP STD-R 12MM HP		X					X		X	

Matrix 220 3 X X - 0 X X

Sensor
3: 1.2MP

Internal Illuminators
0 = Red Multi-Light DPM High Power ⁽¹⁾
2 = Red Standard High Power
4 = White Standard High Power
5 = White Standard
8 = Red Multi-Light DPM ⁽²⁾
9 = Blue Multi-Light DPM ⁽²⁾

Optics
2: 7mm electronic focus control
5: 12mm electronic focus control

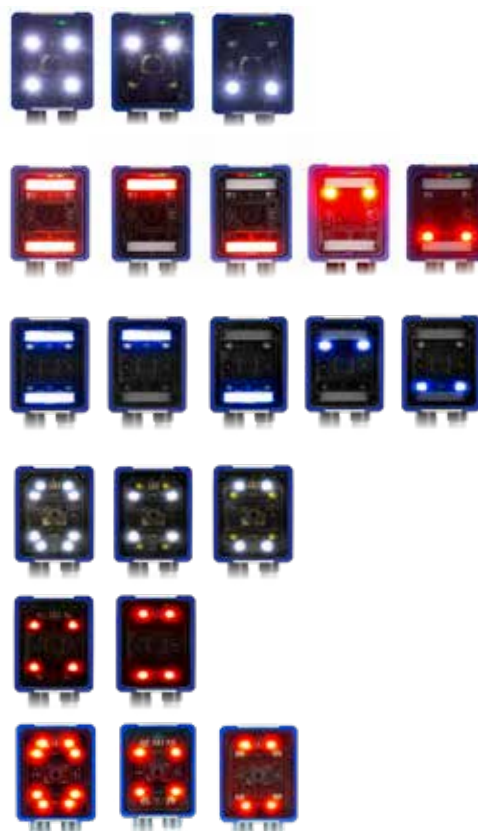
Options
A = Digimarc (DWCODE™)
0 = Standard

Input Power
1 = Standard 10-30 VDC
4 = PoE 48 VDC

Decoding
0 = 1D + 2D

⁽¹⁾ with embedded Polarizer
⁽²⁾ with embedded Polarizer and Diffuser

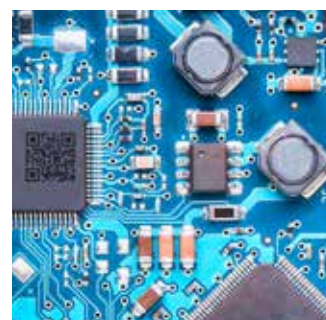
CONFIGURATION	LEDs ON	LEDs COLOR
Model: Standard		
1	4 (Top + Bottom)	White
2	2 (Top)	White
3	2 (Bottom)	White
DPM (Red Light)		
1	12 Diffused (Top + Bottom)	Red
2	6 Diffused (Top)	Red
3	6 Diffused (Bottom)	Red
4	2 Non Polarized	Red
5	2 Polarized	Red
DPM (Blue Light)		
1	12 Diffused (Top + Bottom)	Blue
2	6 Diffused (Top)	Blue
3	6 Diffused (Bottom)	Blue
4	2 Non Polarized	Blue
5	2 Polarized	Blue
Model: Standard (High Power)		
1	8 (Central Chain + Top/Bottom Chain)	White
2	4 (Central Chain)	White
3	4 (Top/Bottom Chain)	White
Model: DPM (High Power)		
1	4 Polarized	Red
2	4 Non Polarized	Red
Model: Digimarc		
1	8 (Central Chain + Top/Bottom Chain)	Red
2	4 (Central Chain)	Red
3	4 (Top/Bottom Chain)	Red



ACCESSORIES

CATEGORY	PART NUMBER	DESCRIPTION
Cables	93A050058	M12-IP67 Cable To CBX or QL (1M)
	93A050059	M12-IP67 Cable To CBX or QL (3M)
	93A050060	M12-IP67 Cable To CBX or QL (5M)
	93A050116	M12-IP67 17p Flexible Cable To CBX or QL (1M)*
	93A050117	M12-IP67 17p Flexible Cable To CBX or QL (3M)*
	93A050118	M12-IP67 17p Flexible Cable To CBX or QL (5M)*
	93A050122	M12-IP67 GIGA Ethernet Cable X-Coded (1M)
	93A050123	M12-IP67 GIGA Ethernet Cable X-Coded (3M)
	93A050124	M12-IP67 GIGA Ethernet Cable X-Coded (5M)
	93A050125	M12-IP67 GIGA Ethernet Flexible Cable X-Coded (1M)*
	93A050126	M12-IP67 GIGA Ethernet Flexible Cable X-Coded (3M)*
	93A050127	M12-IP67 GIGA Ethernet Flexible Cable X-Coded (5M)*
	93A050128	Adapter Cable GIGA Ethernet X-Coded M12 to RJ45
	93A050129	Adapter Cable GIGA Ethernet X-Coded to Ethernet D-Coded
Front covers	93ACC0227	ESD Safe Window Cover M220
	93ACC0228	YAG Cut Filter Window Cover M220
	93ACC0229	ESD Safe YAG Cut Filter Win Cover M220
Bracket	93ACC0230	BK-22-000 Fixing Bracket M220 Body

* Suitable for robotic arms applications



DATALOGIC得利捷产品



传感器



手持式扫码枪



移动数据终端



激光标记与处理



安全激光扫描仪



视觉系统



固定式工业扫描器



安全光幕

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