

MATRIX 220™



Matrix 220是一款結構超緊湊的工業圖像式條碼閱讀器，具有一流的靈活性和卓越性能。它是電子、汽車、包裝和文件處理應用的理想選擇。

Matrix 220讀碼器採用120萬像素的高解析度成像器和新型多核心影像處理平台，具有超凡效能。

它採用了創新的光源解決方案，整合了靈活多樣的光源選項，實現了優異的DPM碼（直接零件標識）閱讀能力。Matrix 220可在單一型號中提供偏光和漫射光選項，能夠在任何類型的表面上實現最佳照明。白光和紅光型號不僅性能卓越，還擁有廣泛的應用範圍。電子聚焦控制可以輕鬆實現遠端切換不同的作業配置，具有極高的使用彈性。

Matrix 220讀碼器還擁有紅綠點技術、X-Press™按鈕、直覺的人機介面和DL.CODE™設定軟體，十分易於使用；同時配備自動設定模式，可輕鬆快速讀取條碼。前蓋具有防靜電（ESD）和雷射防護（YAG）性能，不僅增強了產品靈活性，還減少了型號數量、簡化了庫存管理。

它還具有IP67和IP65外殼防護等級，可在-10至50°C / 14至122°F的溫度範圍內工作，確保製造業應用的最佳品質和穩定性。由於採用乙太網路供電（PoE）連接、板載PROFINET / IO和EtherNet / IP工業現場匯流排，Matrix 220讀碼器可提供經濟高效的通訊功能。

憑藉其出色的效能，Matrix 220讀碼器在得利捷產品組合中擁有極高的性價比。



亮點

· 超緊湊外形和旋轉式連接器，可在狹小空間內進行輕鬆集成和安裝 · 工業級電子聚焦，提供卓越的讀取靈活性 · 新型多功能DPM光源：同時集成了普通光源、漫射光源和偏光鏡功能，可滿足眾多應用需求，並具有極強的DPM讀取性能 · 新型多核心影像處理平台，能夠讀取最小2mils解析度條碼，適用於高速應用 · 硬體加速可加速演算法並提高解碼能力 · 乙太網路供電版本，板載PROFINET / IO和EtherNet / IP，以提供工業連接 · 擁有IP65和IP67外殼防護等級，適用於惡劣環境，或-10至50°C / 14至122°F的工作溫度；具有適合機器人應用的新型柔性電纜 · 透過前蓋添加配件，可實現防靜電（ESD）和雷射防護（YAG）功能，提供極高的靈活性並優化庫存

應用

電子產品
· 追蹤與追蹤電路板製造 ·
電子元件（如晶片）
· 電子產品追蹤
· 讀取DPM條碼（用於塑膠、玻璃、金屬表面） 汽車 ·
DPM條碼驗證 ·
生產控制 ·
零件和組件可追溯性包裝
· 初級包裝條碼讀取 · 包裝可追溯 · 餐飲
文件處理

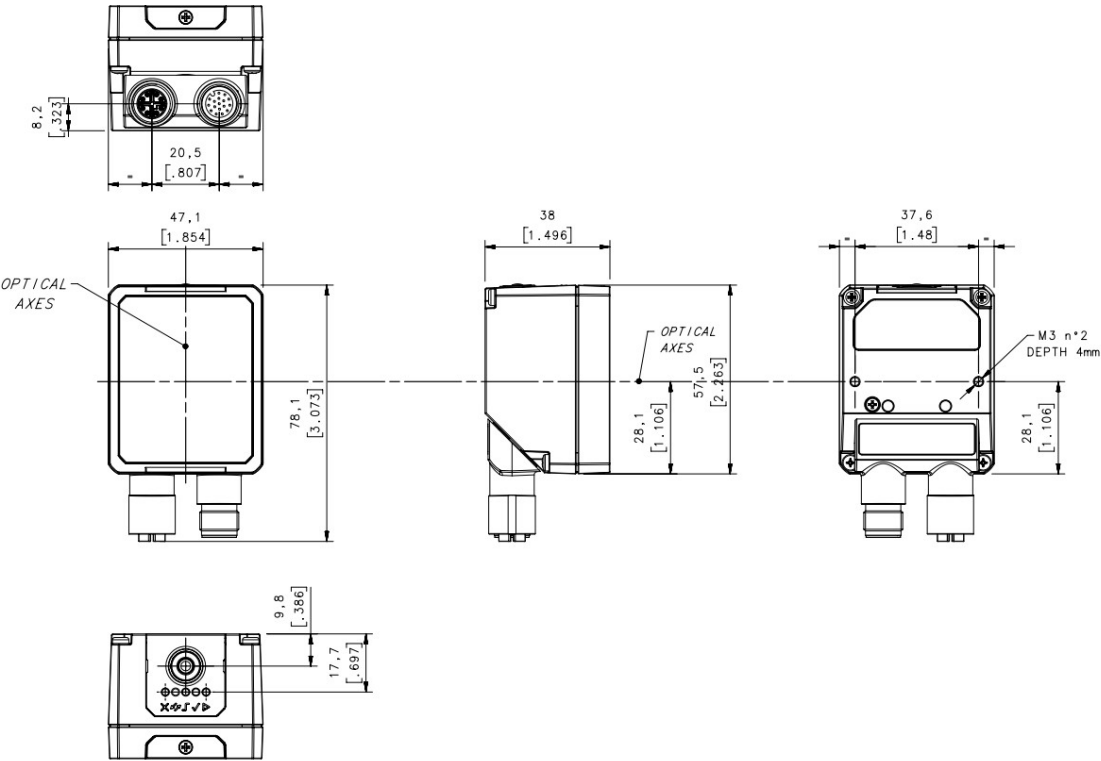
技術參數

	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 至 50°C (14 至 122 °F)	
Storage Temperature	-20 至 70 °C (-4 至 158 °F)	
Protection Class	IP65, IP67	
Sulfur gas resistance	Available for all the models according to ISO EN 60068-2-43	
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 瓦特 (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 高 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™	

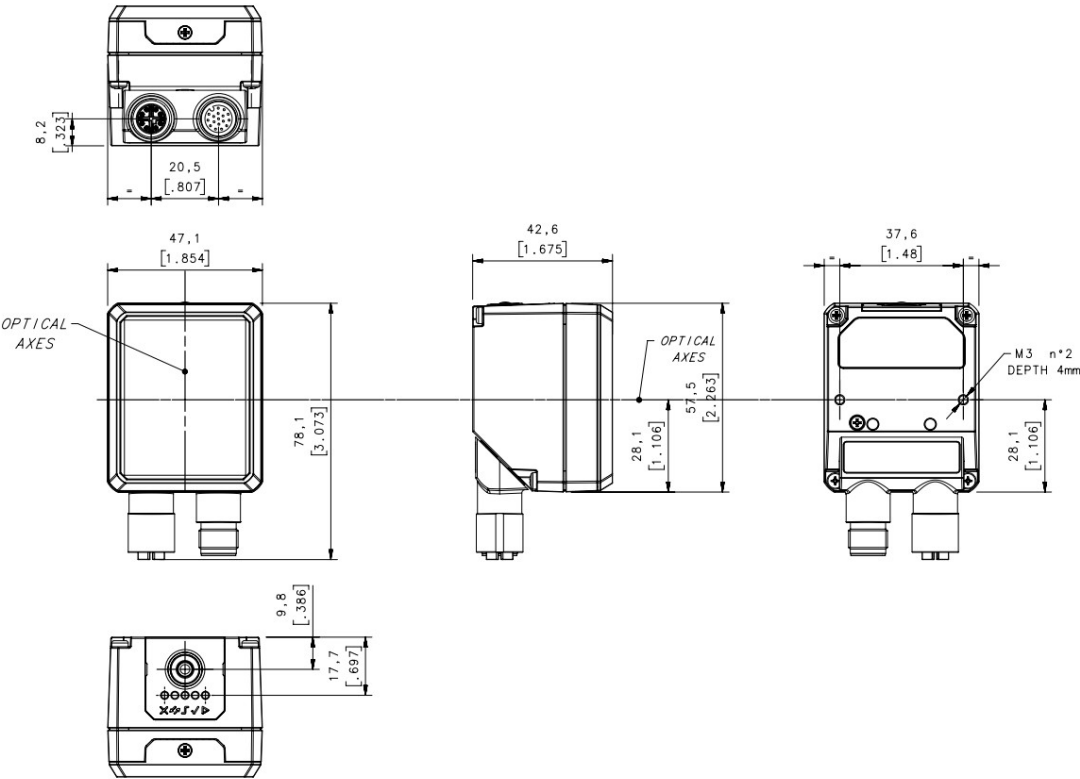
尺寸

Dimensions in mm

MATRIX 220 – 接头平直



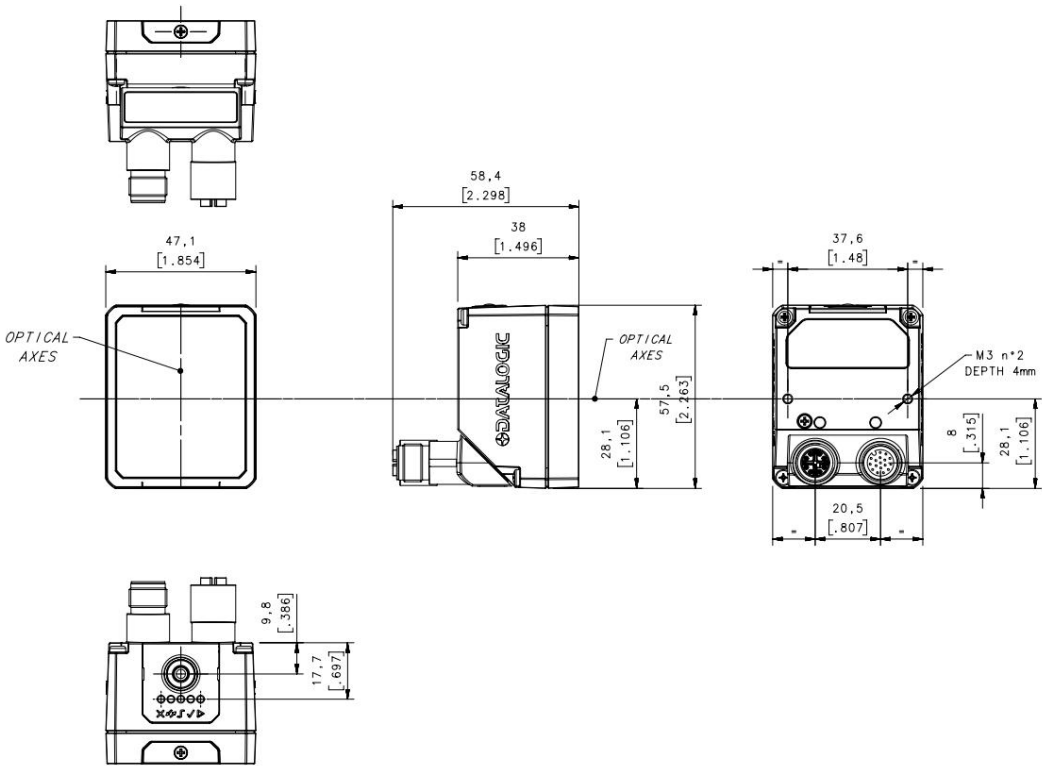
MATRIX 220 – 接头平直加ESD/YAG防护盖



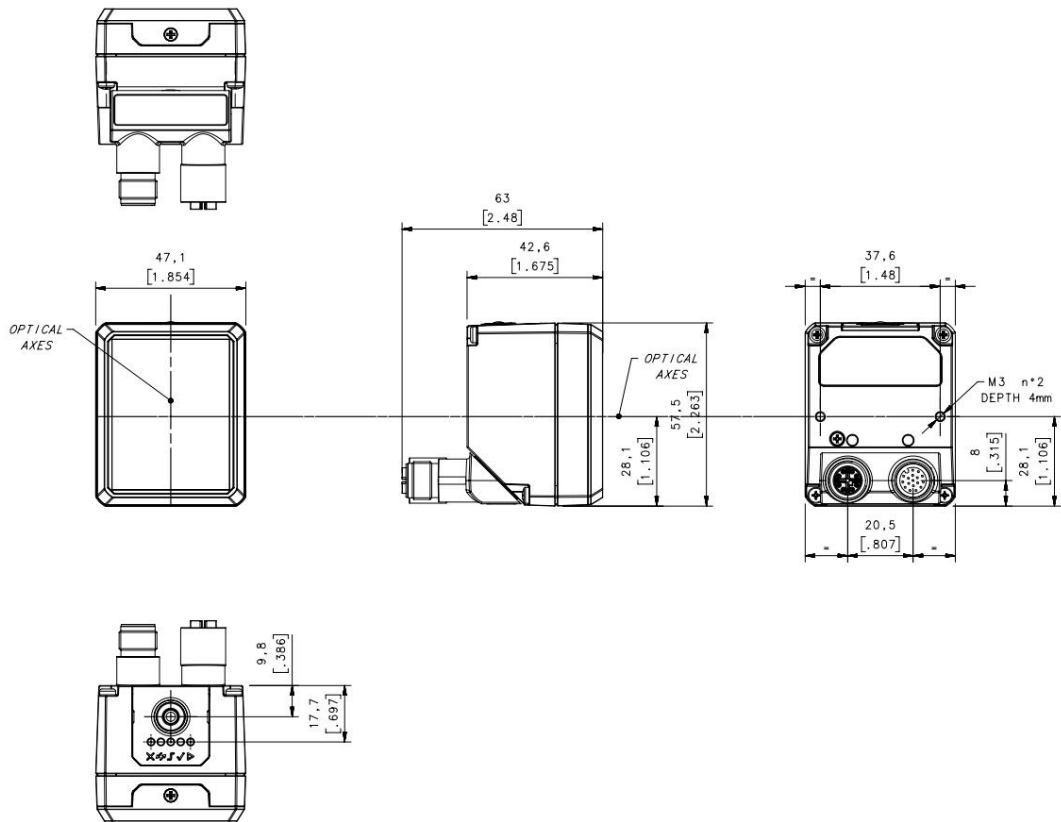
DIMENSIONS

Dimensions in mm

MATRIX 220 - 90° CONNECTORS

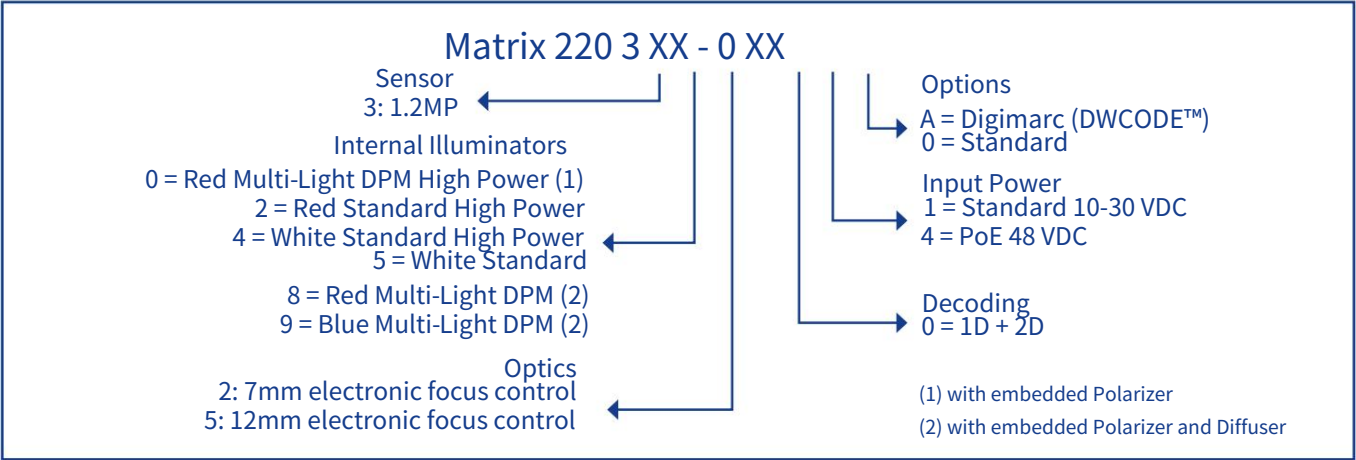


MATRIX 220 - 90° CONNECTORS & ESD/YAG COVER



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	

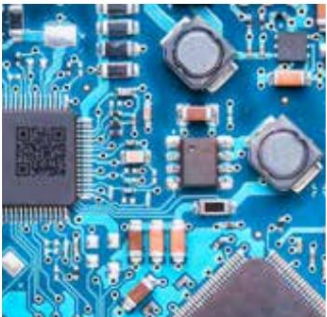


CONFIGURATION	LEDs ON	LEDs COLOR
Model: Standard		
1	4 (Top + Bottom)	White
2	2 (Top)	White
3	2 (Bottom)	White
DPM (Red Light)		
1	12 Diffused (Top + Bottom)	Red
2	6 Diffused (Top)	Red
3	6 Diffused (Bottom)	Red
4	2 Non Polarized	Red
5	2 Polarized	Red
DPM (Blue Light)		
1	12 Diffused (Top + Bottom)	Blue
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
	93A050076	CAB-GD03 M12 F/L 3M
	93A050077	CAB-GD05 M12 F/L 5M
	93A050078	CAB-GD10 M12 F/L 10M
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