MATRIX 120™

The Matrix 120 imager is the smallest ultra-compact industrial 2D imager range in the market to fit any integration space and the smallest compact 2D imager with embedded Ethernet connectivity.

The Matrix 120 is available in different models, including a WVGA sensor for standard applications or a 1.2 MP sensor for high resolution bar codes. Moreover, a wide angle version makes the Matrix 120 the perfect solution for proximity reading.

The Matrix 120 with the red light model is the first stationary industrial scanner in the market able to read Digimarc Barcode for added value decoding applications.

The Matrix 120 features the top industrial grade parts in its class (IP65 and 0-45 °C / 32 – 133 °F), with ESD safe models for applications in the electronic industry and a glass-free reading window, suitable for the Food and Beverage environment.

Sulfur gas protection allows the use of Matrix 120 in tires applications through rough manufacturing, final finishing and inspection stations.

As part of the full Matrix series, the Matrix 120 leads the market for customer ease of use because of DL.CODE™ configuration software, X-Press™ button and intuitive HMI.

The Matrix 120 is the entry level model of the best-in-class Matrix family of high performance industrial 2D imagers.

The Matrix 120 is the perfect solution when small dimension, simple integration and performance are the key drivers. This makes the Matrix 120 the ideal product for OEM customers: Chemical/ Biomedical industry and Print & Apply applications. Additionally, this imager is perfect for entry level applications in the Factory Automation arena: Electronics, Packaging and Food/Beverage.

HIGHLIGHTS

- Ultra compact dimensions for easy integration
- WVGA – 1.2 MP and wide angle models
- Smart user selectable focus for high application flexibility
- Digimarc Barcode reading technology for added value decoding applications
- Embedded Ethernet connectivity
- Serial and USB options on the same model
- ESD versions for electronic applications
- Polarized Version for 90° mounting and reflecting surfaces
- Top industrial grade: IP65; operating temperatures: 0-45 °C / 32 – 133 °F
- DL.CODE software configurator for outstanding ease of setup
- Xpress, Datalogic's 'Green Spot' technology and intuitive HMI for top ease of use

APPLICATION

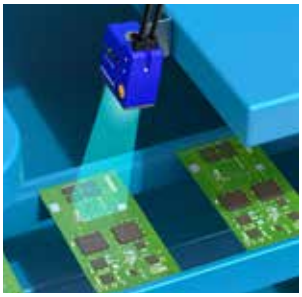
- Electronics: Track and trace PCB board manufacturing
- Factory Automation: Print & Apply – label verification
- Factory Automation: Food & Beverage – traceability
- OEM: Kiosks: ticketing machine
- Healthcare: Clinical Lab – vials identification
- Chemical and biomedical analysis machine

TECHNICAL DATA

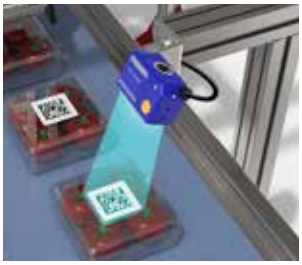
Reading range (min-max)	Matrix 120 - WVGA: 25-190mm [1.0-7.5 in] Matrix 120 - 1.2 MP: 25-220mm [1.0-8.7 in]
Focusing system	Manual adjustment in three precalibrated positions (45, 70, 125mm - WVGA ; 45, 80, 125mm - 1.2 MP)
Sensor	CMOS sensor with Global Shutter/WVGA - 752x480 px CMOS sensor with Global Shutter/1.2 MP - 1280x960 px
Frame Rate	up to 57 full-frame/s (WVGA model) , up to 36 full-frame/s (1.2 MP model)
On board memory	128 MB
Readable codes	1D Codes: all standard 1 dimensional symbologies 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 orientation	Omnidirectional on any code type
Multilabel / multicode reading	✓
Voltage supply / power consumption	5-30 VDC; 1.6 to 2.4 W
IP rating	IP65
Temperature range	0-45 °C / 32 – 113 °F
Sulfur gas resistance	Available for all models according to ISO EN 60068-2-43
Case material	Zama (Zinc Alloy)- Plastic reading window cover
Dimensions (typical value)	45.4 x 31.1 x 23.5 mm [1.8 x 1.2 x 1 in] (SER+USB model) 45.4 x 48.5 x 23.5 mm [1.8 x 1.9 x 1 in] (SER+ETH model)
Weigth	117 g (4.1 oz) with cable (SER+USB model) - 200 g (7.1 oz) with cable (SER+ETH model)
ESD safe	✓
Polarizing filter	✓
Embedded communication interfaces	RS-232/RS-422/USB 2.0 high speed (USB-CDC, USB-HID) Main RS-232 or RS-422 FD (2400 to 115200 bit/s)
Ethernet	Embedded (SER+ETH model only) 10/100 Mbit/s*
Digital inputs	Two SW Programmable (PNP/NPN)
Digital outputs	Two SW Programmable (PNP/NPN)
Device programming	X-PRESS™ Human Machine Interface Windows-based SW (DL.CODE™) via Ethernet or Serial Interface Host Mode Programming sequences sent over Serial or Ethernet TCP interfaces

** The embedded Ethernet interface supports application protocols: TCP/IP, EtherNet/IP, PROFINET-IO, Modbus TCP.*

Pharma



Electronics



Food & Beverage

MODELS

CODE	DESCRIPTION	SW	SENSOR	CONNECTIVITY	TYPE	CODE LIBRARY
937800000	MATRIX 120 210-000 WVGA SER+USB STD	DL.Code	WVGA	SER+USB	STD	1D+2D
937800001	MATRIX 120 210-010 WVGA SER+ETH STD	DL.Code	WVGA	SER+ETH	STD	1D+2D
937800002	MATRIX 120 210-001 WVGA SER+USB ESD	DL.Code	WVGA	SER+USB	ESD	1D+2D
937800003	MATRIX 120 210-011 WVGA SER+ETH ESD	DL.Code	WVGA	SER+ETH	ESD	1D+2D
937800004	MATRIX 120 310-001 1.2MP SER+USB ESD	DL.Code	1.2 MP	SER+USB	ESD	1D+2D
937800005	MATRIX 120 310-011 1.2MP SER+ETH ESD	DL.Code	1.2 MP	SER+ETH	ESD	1D+2D
937800006	MATRIX 120 210-100 WVGA SER+USB 1D	DL.Code	WVGA	SER+USB	STD	1D
937800007	MATRIX 120 210-110 WVGA SER+ETH 1D	DL.Code	WVGA	SER+ETH	STD	1D
937800008	MATRIX 120 311-000 1.2MP SER+USB WA	DL.Code	1.2 MP	SER+USB	WA	1D+2D
937800009	MATRIX 120 311-010 1.2MP SER+ETH WA	DL.Code	1.2 MP	SER+ETH	WA	1D+2D
937800010	MATRIX 120 311-100 1.2MP SER+USB WA 1D	DL.Code	1.2 MP	SER+USB	WA	1D
937800011	MATRIX 120 311-110 1.2MP SER+ETH WA 1D	DL.Code	1.2 MP	SER+ETH	WA	1D
937800014	MATRIX 120 311-005 1.2 SER+USB WA PLZR	DL.Code	1.2 MP	SER+ETH	WA	1D+2D
937800015	MATRIX 120 311-015 1.2 SER+ETH WA PLZR	DL.Code	1.2 MP	SER+ETH	WA	1D+2D
937800045	MATRIX 120 310-01A 1.2MP SER+ETH	DL.Code	1.2 MP	SER+ETH	Digimarc	1D+2D+DWCODE™

DATALOGIC PRODUCT OFFERING

Sensors

Hand Held scanners

Mobile Computers

Laser Marking Systems

Safety Laser Scanner

Vision Systems

Stationary Industrial Scanners

Safety Light Curtains

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