



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™ is characterized with 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 features a glass-free reading window, suitable for the Food and Beverage environment.

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.



IDENTIFICATION

HIGHLIGHTS

- Ultra compact dimensions for easy integration
- WVGA – 1.2 MP and wide angle models
- Smart user selectable focus for high application flexibility
- 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

APPLICATIONS

- 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

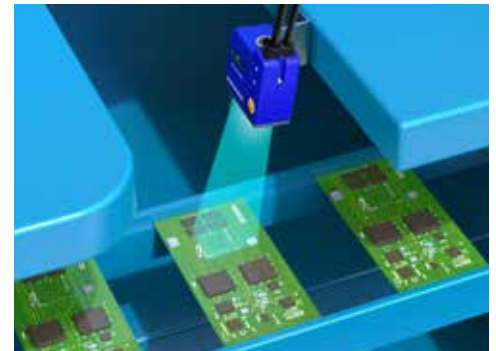
TECHNICAL DATA

| | |
|-----------------------------------|--|
| READING RANGE (MIN - MAX) | Matrix 120 - WVGA: 25-190mm [1.0-7.5 in] Matrix 120 - MP: 25-220mm [1.0-8.7 in] |
| FOCUSING SYSTEM | Manual adjustment in three precalibrated positions (45, 70, 125mm - WVGA ; 45, 80, 125mm - MP) |
| SENSOR | CMOS sensor with Global Shutter/WVGA - 752x480 px CMOS sensor with Global Shutter/MP - 1280x960 px |
| FRAME RATE | up to 57 full-frame/s (WVGA model) , up to 36 full-frame/s (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 Postal Codes: Royal Mail, Japan Post, Planet, Postnet and many more |
| 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 – 133 °F |
| 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) |
| WEIGHT | 117 g (4.1 oz) with cable (SER+USB model) - 200 g (7.1 oz) with cable (SER+ETH model) |
| ESD SAFE | ✓ |
| 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 |

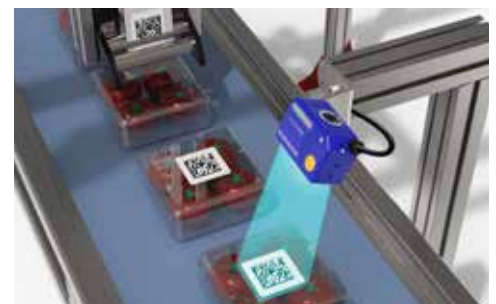
* The embedded Ethernet interface supports application protocols: TCP/IP, EtherNet/IP, PROFINET-IO, Modbus TCP.



Pharma



Electronics



Food & Beverage

MODELS

| Code | Description | SW | Sensor | Connectivity | Type | Code Library |
|-----------|--------------------------------------|---------|--------|--------------|------|--------------|
| 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 | ETH | STD | 1D |
| 937800000 | MATRIX 120 210-000 WVGA SER+USB STD | DL.Code | WVGA | SER+USB | STD | 1D+2D |
| 937800002 | MATRIX 120 210-001 WVGA SER+USB ESD | DL.Code | WVGA | SER+USB | ESD | 1D+2D |
| 937800001 | MATRIX 120 210-010 WVGA SER+ETH STD | DL.Code | WVGA | ETH | STD | 1D+2D |
| 937800003 | MATRIX 120 210-011 WVGA SER+ETH ESD | DL.Code | WVGA | 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 | ETH | ESD | 1D+2D |