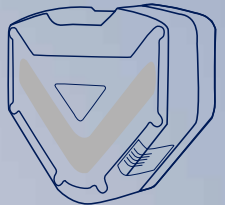
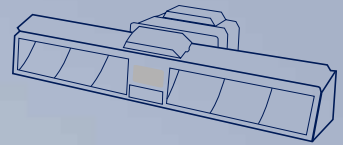
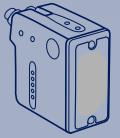


# STATIONARY INDUSTRIAL SCANNERS

## Product Guide



# LASER BASED BAR CODE SCANNERS

## APPLICATIONS

### DS2100N/DS2400N

#### Automated warehousing

- Conveyor sorting
- Picking systems
- Automated storage and retrieval systems
- Tote Reading

#### Automated Shopfloor

- Item and part tracking
- Process control and packaging
- Packaging and compliance

#### OEM

- High speed document handling machines
- Print & apply systems
- Automatic chemical and biomedical analysis machines
- Reverse vending machines (can and bottle recycling)



## Highlights

### DS2100N/DS2400N

- Embedded Ethernet connectivity
- Two Profinet Ports (MRP supported)
- Embedded Ethernet Switch
- Rotating connector block
- Compact dimensions
- Excellent performance on low quality and damaged labels
- DS2100N: Up to a 300 mm (11.8 in.) reading distance
- DS2400N: Up to a 600 mm (23.6 in) reading distance
- Oscillating Mirror (Accessory)

## Technical data

### DS2100N

- Scan rate: up to 1000scans/s
- Reading range: 50 to 300mm
- Max. resolution: 0.12mm (5mils)
- Power supply: 10 to 30VDC, 4W max.
- Protection class: IP65
- I/O: 2 inputs, 2 outputs; optocoupled

### DS2400N

- Scan rate: up to 1000scans/s
- Reading range: 70 to 600mm
- Max. resolution: 0.12mm (5mils)
- Power supply: 10 to 30VDC, 4W max.
- Protection class: IP65
- I/O: 2 inputs, 2 outputs; optocoupled
- Operating temperature: -35°C to 45°C (subzero model), 0°C to 45°C (standard model)

### DS5100

- Automotive: WIP Control, Parts Traceability
- Food & Beverage: Shipping Process, End of Line Palletizing
- Pharmaceutical: Secondary Package Control
- Warehousing: Tote Tray Identification, Automatic Picking Process Control
- Sorting on logistic and distribution lines
- Print & Apply



### DS5100

- Selectable focus system
- Display and multi-language messages
- ID-NET™ embedded interface for high speed communication network
- Single/Double Ethernet port
- Integrated oscillating mirror models
- Profinet (MRP supported)
- Compatible with SC500/DS8110/DX8210

### DS5100

- 800-1000 scans /sec
- 2 inputs + 2 outputs
- RS232 + RS485 serial port, Ethernet, Profinet
- Typical reading range of 200 – 1350 mm
- Subzero ver. up to -35°C (-31°F)
- Power supply: 10-30 Vdc
- Protection class: IP65

### DS6400

- Automated warehousing
- Shopfloor on automotive, electric appliances, food & beverage
- Sorting on logistic and distribution lines
- Omni-sorting on small conveyors
- End of line palletizing



### DS6400

- Flash™ (Dynamic) laser optics
- Step-A-Head™ feature
- ACR4™ Advanced Code Reconstruction
- Integrated oscillating mirror models
- Built-in connectivity to Ethernet/Devicenet/Profibus networks
- PackTrack™ tracking system
- Embedded display and keypad

### DS6400

- Optics: Flash™ (Dynamic) (DS6400)
- Scan rate: Up to 1200scan/s
- Reading range: 300 to 2500mm
- Max. resolution: up to 0.2mm (8mils)
- Connectivity: RS232, RS485, EtherNet IP, Ethernet TCP/IP
- I/O: 4 inputs, 3 outputs; optocoupled
- Power supply: 15 to 30 VDC

# LASER BASED BAR CODE SCANNERS

## APPLICATIONS

### DS8110/DX8210

- Airport Baggage Handling
- Parcel Sorting
- Retail Distribution Center
- Loading/Unloading System
- Shop Floor and Manufacturing
- Automatic Warehousing Management



## Highlights

DS8110 linear barcode scanner/  
DX8210 omnidirectional barcode scanner

- ALL-IN-ONE architecture (DX8210)
- Top class reading performance
- Excellent performance on Low quality code
- DST (Digital Signal Technology) offering stable and constant performance at any operative conditions
- Multi laser ASTRA G3 technology
- Ethernet Bus Connections
- Fully redundant configuration, no single point of failure
- Compact mechanical dimensions
- Unmatchable ease of use and ease of installation
- e-GENIUS web browser programming tools
- Modular architecture and building block configurations
- Ease maintenance and automatic replacement

## Technical data

### DS8110

- Scan pattern type: linear
- Scan rate: 1000 scans/s
- Reading range: 500 to 1900mm
- Resolution: min 0.25 mm (10 mils)/max 0.50 mm (20 mils)
- Dimensions: 216 x 96 x 127 mm [8.5 x 3.8 x 5 in]
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

### DX8210

- Scan pattern type: X-Pattern
- Scan rate: 1000scans/s
- Resolution: min 0.25 mm (10 mils)/max 1.0 mm (40 mils)
- Dimensions: 381 x 328 x 92.5 mm [15 x 13 x 3.6 in]
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

# DIMENSIONER

## APPLICATIONS

### DM3610 1-Head Solution

- Parcel revenue recovery
- Distribution Center spatial management
- Automated shipping and manifesting systems
- Trailer load planning



## Highlights

### DM3610 1-Head Solution

- NTEP, OIML and MC certified for Legal for Trade applications on belt conveyors
- NTEP and OIML certified for Legal for Trade applications on cross-belt
- Works for cuboidal
- Works for singulated and non-singulated package flows

## Technical data

### DM3610 1-Head Solution

- Only cuboidals
- Singulated (spacing >20mm)
- Accuracy (L x W x H) = +/-5mm x +/- 5mm x +/- 2mm at transport speeds up to 3.1 m/s
- Maximum box size 2500x1200x900mm
- Operating temperature: 0°C to 50°C
- Protection class: IP 65
- Factory warranty: 2 years

### DM3610 2-Head Solution

- Parcel revenue recovery
- Distribution Center spatial management
- Automated shipping and manifesting systems
- Trailer load planning



### DM3610 2-Head Solution

- NTEP and OIML certified for Legal for Trade applications on belt conveyor and cross-belt
- Works for cuboidal and irregular package flows
- Works for singulated and non-singulated package flows
- Reduced shadowing

### DM3610 2-Head Solution

- Cuboidals and Irregulars
- Singulated (spacing > 25mm)
- Maximum box size 2500x1600x1000mm
- Operating temperature: 0°C to 50°C
- Protection class: IP 65
- Factory warranty: 2 years

# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### MATRIX 120™

#### Manufacturing

- Electronics: Track and trace PCB board manufacturing
- Print & Apply: label verification
- Food & Beverage: traceability
- Automotive: End of line, tire finishing and inspection

#### OEM

- Kiosks: ticketing machine

#### Healthcare

- Clinical Lab: vials identification
- Chemical and biomedical analysis machine



## Highlights

### MATRIX 120™

- Ultra compact dimensions for easy integration
- Smart user selectable focus for high application flexibility
- Digimarc Barcode reading technology for added value decoding applications
- ESD Version for electronic applications
- Polarized Version for 90° mounting and reflecting surfaces
- DL.Code sw configurator for outstanding ease of setup
- Xpress, Green spot and intuitive HMI for top ease of use

## Technical data

### MATRIX 120™

- WVGA – 1.2MP Models and Wide angle model
- Embedded Ethernet connectivity
- Serial and USB on the same model
- Protection class: IP65
- Operating temperature: 0°C to 45°C
- Supply Voltage: 5 to 30 Vdc

### MATRIX 210N™

#### Manufacturing

- Electronics: PCB board tracking, electronic product tracking

#### Medical & pharmaceutical

- Medical device traceability
- Pharmaceutical supply chain traceability

#### OEM

- Chemical & biomedical analysis
- Access control systems
- Self service systems (ATM, kiosks)
- Print & apply systems
- Document handling



### MATRIX 210N™

- Integrated Ethernet, PROFINET, EtherNet IP
- Electronic focus control option
- High performance DPM bar code reading
- Outstanding decoding capability on DPM and labeled 1D & 2D standard codes
- Straight and right angle models for smart mounting
- ID-NET™ reader clustering/networking
- Industrial Protection: ESD-safe, YAG, IP65
- DL.CODE™ configuration SW and X-PRESS™ for easy and intuitive setup

### MATRIX 210N™

- Extremely compact dimensions: 50x25x45mm & 54x45x32mm
- High speed integrated EtherNet for real time image transfer
- WVGA image resolution, 60 frames/s
- Object speed: up to 2.0m/s
- Connectivity: Ethernet 10/100: EtherNet IP, PROFINET, TCP/IP, UDP, FTP, MODBUS TCP
- Serial RS232/RS422/RS485 up to 115.2 Kbit/s + Aux RS232
- Protection class: IP65
- Operating temperature: 0°C to 50°C

### MATRIX 220™

#### Manufacturing

- Electronics: Tracking/tracing of electronic products and components, DPM barcode reading
- Automotive: DPM code validation after marking, work-in-progress control, parts and assembly traceability
- Packaging: Primary packaging barcode reading, package traceability, food and beverage application

#### Document handling

- Fast decoding for high speed applications



### MATRIX 220™

- Compact dimension and superior performance in its class
- New red and blue-light All-In-One DPM illuminator for strong DPM reading performance
- Top performing High Power Illuminator models for challenging high speed applications
- Smart electronic focus control for high reading flexibility
- Digimarc Barcode reading technology for added value decoding applications
- Total connectivity to main industrial Fieldbus
- Easy installation and setup thanks to DL.CODE software
- ESD and Anti-YAG protection as front cover accessory for extreme flexibility and optimized stock flexibility, reducing the number of models and simplifying the stock management
- New flexible cables suitable for robotic arms applications

### MATRIX 220™

- New multicore image processing platform excellent for high speed applications
- Hardware Acceleration to speed up algorithms and improve decoding capabilities
- 1.2 MP high resolution image sensor
- High Dynamic Range to improve image quality and contrast
- Embedded Ethernet/IP and Profinet-IO industrial fieldbus
- OPC UA protocol for Industry 4.0
- Power over Ethernet (PoE) option available
- Protection class: IP65 and IP67 industrial grade for harsh environments
- Operating temperatures: -10 °C to 50°C (14°F – 122°F)

# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### MATRIX 300N™ 1.3 & 2MP

#### Manufacturing

- Automotive: DPM code quality verification and trending after marking, work-in-progress traceability and control
- Electronics: Parts traceability and control, high resolution codes reading
- Packaging: Label print & check, end of line palletizing

#### Document Processing

- High speed process control

#### Medical

- Medical device traceability

#### Clinical Lab Automation

- Biomedical analysis machines
- Specimen collection machines

#### Logistics Automation

- Carton and tote traceability
- Automated warehousing



## Highlights

### MATRIX 300N™ 1.3 & 2MP

- High performance DPM reading
- Multi LED-Chains Illuminator with diffuser for DPM applications
- Liquid lens dynamic focus control
- Polarized illuminator for reflecting surfaces
- Fast and high-resolution image sensors
- Power over Ethernet option and onboard PROFINET-IO
- Extreme Industrial grade and wide operating temperature range for harsh environments
- DL.CODE™ configuration SW and X-PRESS™ for easy and intuitive setup

## Technical data

### MATRIX 300N™ 1.3 & 2MP

- Manual and electronic focus control
- CMOS global shutter sensor
- 1280 x 1024 (1.3 MP sensor) and 1600 x 1200 (2 MP sensor) image resolution
- Read rate: 60 frames/s (1.3 MP sensor); 45 frame/s (2 MP sensor)
- Connectivity: Ethernet 10/100: EtherNet IP, TCP/IP, UDP, FTP, MODBUS TCP, PROFINET-IO; Serial RS232/RS422/RS485 up to 115.2 Kbit/s + Aux RS232
- Protection class: IP65-IP67
- Operating temperature: 0°C to 50°C / 32°F to 122°F (1.3 MP models), 0°C to 45°C / 32°F to 113°F (2 MP models)

### MATRIX 410N™

#### Manufacturing

- Automotive: Part traceability in assembly

#### Distribution & retail industry

- Manual Presentation
- Small Objects Sorting
- Totes content scanning

#### Medical & pharmaceutical

- Automated storage/retrieval
- Automated Order fulfillment/validation

#### Warehouse

- End of line, Carton/objects, single or multi-side scanning



### MATRIX 410N™

- Patented continuous high power mode lighting
- Patented PackTrack allows for item spacing of >50mm ( 2 in ) for maximum throughput
- Embedded Ethernet connectivity, with Profinet, EtherNet IP, TCP/IP, FTP, HTTP
- On board image storage saving up to 3,000 image (scaled)
- External connection box with parameter back up memory and display
- Remote, web-based WebSentinel software with image archiving database
- DL.CODE™ configuration SW and X-PRESS™ for easy and intuitive setup

### MATRIX 410N™

- Operating temperature: Manual Focusing models, 0°C to + 50°C (32°F to 122°F)
- On board image storage saving up to 3,000 image (scaled)
- Protection class: IP65-IP67
- CMOS global shutter sensor
- 1.3 or 2.0 MP, 45-60 frames/s
- Connectivity: Ethernet 10/100: Ethernet IP, PROFINET, TCP/IP, UDP, FTP, MODBUS TCP Serial RS232/RS422/RS485 up to 115.2 Kbit/s + Aux RS232

### MATRIX 450N™

#### Transportation and Logistics

- Automated sorting
- Manual postal sorting
- Loading / unloading

#### Distribution & Retail

- Order fulfillment and verification
- Multimedia sorting
- Reverse logistic processes
- Static scanning



### MATRIX 450N™

- Very large reading area, FOV and DOF
- Outstanding dynamic reading capabilities, up to 3.2 m/s on 0.30 mm resolution 1D code
- White and Blue illumination options
- Patented PackTrack allows for item spacing of >50mm ( 2 in ) for maximum throughput
- ID-NET™ readers clustering to extend the reading area coverage on single side and multi-side applications
- Persistent Image Saving on specific reading results (No Read) for diagnostics or reporting
- DL.CODE™ configuration SW and X-PRESS™ for easy and intuitive setup

### MATRIX 450N™

- 5MP image sensor, 15 FPS
- Gigabit Ethernet Integrated Connectivity
- C-Mount Lenses, focal length: 16 mm, 25 mm, 35 mm, 50 mm
- Data output: RS232/RS485, Ethernet
- I/O: 2 inputs, 2 outputs; optocoupled
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Supply Voltage: 24 Vdc ± 20%

# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### STS 400™

#### Transportation and Logistics

- Postal and courier express sorting
- Solution for tires traceability and sorting
- Revenue recovery
- Reverse logistic processes

#### Distribution & Retail

- Large distribution centres
- Multimedia sorting
- Receiving / shipping systems



## Highlights

### STS 400™

- Easy to install: 100% pre-assemble calibrating
- Easy to maintain
- Simple and lean: simple and regulated render layout which avoids articulated mounting patterns
- Long-term reliability: no moving on board guarantee reliability and longer life-cycle
- Ready for the future: compatible with changing requirements such as downsizing of code heights or introduction of cd codes

## Technical data

### STS 400™

- 5 to 8 clustered Matrix 410
- 2 MP imagers sensor
- Interfacing CBX500 with display and back up memory
- Persistent Image Saving on specific reading results (No Read) for diagnostics or reporting
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Ethernet, Profinet and Ethernet IP embedded

### XRF 410N™

- E-Commerce
- General material handling with reusable totes
- Medium object sortation for couriers
- Postal Sorting
- End-of-line



### XRF 410N™

- Easy to select the correct model
- Easy to install
- Increase customer productivity
- Ease of use
- Solves the most demanding sortation applications
- Easy to monitor and validate status
- Patented PackTrack allows for item spacing of >50mm ( 2 in ) for maximum throughput

### XRF 410N™

- Full working solutions in one order number
- Factory calibration, optimized for code resolutions 0.25 mm, 0.33 mm, 0.38 mm
- Factory calibration, optimized for speeds up to 2.2 m/s
- Ethernet connectivity on board
- Power supply: 24 VDC
- Protection class: IP67

### AV500/AV900

#### Transportation and Logistics

- Automated sorting
- Manual sorting
- Dimension Weigh Scan System
- Non conveyable Auto dimension systems
- Carton and tote traceability
- OCR and Videocoding
- Extended ID and image saving

#### Distribution & Retail

- Order fulfillment and verification
- Multimedia sorting
- Reverse Logistics process

#### Airports

- Baggage handling systems
- Automated tag reading



### AV500/AV900

- High performance camera (5MP AV500, 9MP AV900) with integrated image processing system
- Patented dynamic, sequential or adjustable focus system offering extended depth of field
- Continuous, no-flashing white or red illumination
- Image saving to external locations through the dedicated high speed Gigabit Ethernet port
- New generation decode algorithm to read very bad quality label
- Multiple format Image saving from full definition to highly compressed JPG
- Patented PackTrack allows for item spacing of >50mm ( 2 in ) for maximum throughput

### AV500/AV900

- Sensor: CMOS sensor, 5MP (AV500) CMOS sensor, 9MP (AV700)
- Scan rate: 32 frames/s
- Readable symbologies: all standard 1D and 2D codes
- Connectivity: 2 Ethernet TCP/IP, 2 serial communication interfaces
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

### AV7000™

#### Transportation and Logistics

- Postal and courier express sorting
- Revenue recovery
- Reverse logistic processes
- OCR and Videocoding
- Extended ID and Image saving

#### Distribution & Retail

- Large distribution centres
- Receiving / shipping systems
- Multimedia sorting



### AV7000™

- Single view high quality picture on large conveyor (1400 mm/55 inch)
- Excellent reading performances on high speed conveyors: 4.8m/s (945fpm)
- Patented Pulsed Lighting System to reduce reading station footprint 2.2m (7ft)
- Patented Autofocus System offering extended DoF
- Patented Digital Zoom technology assuring constant DPI resolution
- New generation decode algorithm to read very bad quality label
- Multiple format Image saving from full definition to highly compressed JPG
- Integration with dimensioning and scale system

### AV7000™

- CMOS linear sensor: 8192 pixels
- Image resolution: 110-260DPI (application dependant)
- Scan rate: 33KHz
- Readable symbologies: all standard 1D and 2D codes
- High quality Image for OCR and Videocoding
- Connectivity: RS232/RS485, Ethernet
- Video output: Gigabit Ethernet, CC-Link
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### TC1200

- Access control systems
- ATL (Automated Tape Libraries)
- Self service systems (ATM, kiosks)
- OEM integration in automatic machines
- Game automation (Lotto, Lottery, etc.)
- Chemical and blood analysis machines
- Print & apply systems
- Film processing machines
- Shipping & Receiving
- Cross docking



## Highlights

### TC1200

- Cost-effective
- Embedded code reconstruction software
- Very high density code reading (up to 0.1mm / 4mils)
- Scanner and scan engine version
- No moving part (MTBF>200.000 hours)
- Designed for OEM integration

## Technical data

### TC1200

- CCD reader
- Scan rate: up to 320scans/s
- Reading range: 50 to 430mm
- Max. resolution: 0.1mm (4 mils)
- RS232 and USB model
- Power supply: 5VDC, 2W max.

# CONNECTIVITY DEVICES

Wide range of **connectivity** for the identification product range with standard IP65 (NEMA4) protection class and operating temperature up 0°C to 50°C.

## CBX SERIES

- Simplified wiring to speed up installation
- Scalable and modular connectivity
- Base and extended models
- Modular field bus connectivity
- Optional backup/restore module
- Optional display
- Low temperature model



## SC SERIES

- Protection class: IP65 (NEMA4)
- Operation temperature: 0 to 50°C
- Network or cluster controller
- Dedicated data-collector for maximum reading performance
- Scalable and modular connectivity
- Backup/restore module
- Maximum compatibility and scalability
- Ethernet TCP/IP, EtherNet IP, Profibus, DeviceNet (QLM series)
- Factory warranty SC4000/SC5000: 2 years



## QL SERIES

- Easy, fast, modular and cost-effective solution with "plug-in connection"
- Ethernet TCP/IP and EtherNet IP (QL500)





Rev. 19, 07/2020



9C0002870

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