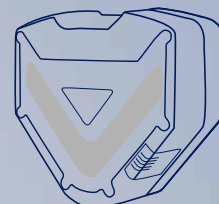
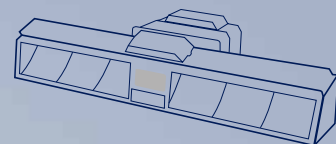
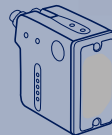


# STATIONARY INDUSTRIAL SCANNERS

## Product Guide



# LASER BASED BAR CODE SCANNERS

## APPLICATIONS

### DS4800

#### Automated warehousing

- Medium/small conveyor sorting
- Pallet reading
- Automated storage and retrieval systems
- Picking systems
- Receiving / shipping systems

#### Automated Shopfloor

- Item and part tracking
- Process control systems
- Overall production traceability
- Packaging and compliance



## Highlights

### DS4800

- Manually adjustable focus with locking
- Ambient light immunity for outside applications
- Integrated multi-language display for setup, monitoring, and diagnostics
- ACR4™ Advanced Code Reconstruction
- Integrated oscillating mirror model available
- ID-NET™ embedded interface for high speed communication network
- All 1D codes including GS1

## Technical data

### DS4800

- Scan rate: up to 1000scans/s
- Reading distance: up to 1000mm on 0.50mm (20mils) codes
- Depth of field: up to 600mm on 0.50mm (20 mils) codes
- Max. resolution: up to 0.20mm (8mils)
- Connectivity: RS232, RS485
- I/O: 2 inputs, 2 outputs; optocoupled
- Power supply: 10 to 30VDC; 6W max.
- Protection class: IP65
- Operating temperature: -35°C to 50°C (subzero model), 0°C to 50°C (standard model)

### DS5100

#### Manufacturing

- 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



## Highlights

### DS5100

- Selectable focus system
- Display and multi-language messages
- ID-NET™ embedded interface for high speed communication network
- Genius™ (Windows™ based) SW
- Serial Host Mode Programming sequences

## Technical data

### 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
- Ethernet Bus Connections (EBC) for high speed data transmission and real time synchronization (as slave with 8k)

### DS6300/DS6400

- Automated warehousing
- Electronic industry manufacturing
- Shopfloor on automotive, electric appliances, food & beverage
- Sorting on logistic and distribution lines
- Omni-sorting on small conveyors



## Highlights

### DS6300/DS6400

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

## Technical data

### DS6300/DS6400

- Optics: adj. (DS6300) Flash™ (Dynamic) (DS6400)
- Scan rate: Up to 1200scan/s
- Reading range: 250 to 2000mm (DS6300) 300 to 2500mm (DS6400)
- 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 30VDC, 15W max.

### DS8110/DX8210

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



DX8210

DS8110

## 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
- Genius™ (Windows™ based) SW

## Technical data

### DS8110

- Scan pattern type: linear
- Scan rate: 1000 scans/s
- Reading range: 500 to 1900mm
- Max. resolution: min 0.25mm/max 0.50 mm
- 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
- Max. resolution: min 0.25mm/max 1.0 mm
- 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

# LASER BASED BAR CODE SCANNERS

## APPLICATIONS

### TC1200/DS1100

- 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



TC1200

DS1100

## 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

### DS1100

- Cost-effective
- Direct or 90° reading window
- Motor on/off SW control
- 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.

### DS1100

- Scan rate: up to 500scans/s
- Reading range: 10 to 220mm
- Max. resolution: 0.127mm (5mils)
- Motor on/off via software commands
- Power supply: 5VDC, 2W max.
- Protection Class: IP65

### DS1500/DS2200

- OEM integration in automatic machines
- Chemical and biomedical analysis machines
- Document handling machines
- Print & apply systems
- High speed pharmaceutical packaging
- Packaging machines
- ATL (Automated Tape Libraries)



DS1500

DS2200

## Highlights

### DS1500

- Extremely compact size
- Excellent reading capabilities
- Designed for OEM integration
- ACB™ Advanced Code Builder
- Motor on/off SW control

### DS2200

- Compact dimensions
- Excellent reading capabilities for high density codes
- Designed for OEM integration
- Very high density code reading (up to 0.076mm / 3mils)

## Technical data

### DS1500

- Dimensions: 40x30x22mm
- Scan rate: up to 1200scans/s
- Reading range: 40 to 240mm
- Max. resolution: 0.10mm (4mils)
- Test mode with bar graph
- Power supply: 5VDC, 2W max.
- Protection class: IP65

### DS2200

- Dimensions: 50x40x28mm
- Scan rate: 500scans/s (1000scans/s on demand)
- Reading range: 50 to 200mm
- Max. resolution: 0.076mm (3mils)
- Power supply: 5VDC, 2W max.
- Protection class: IP65

### 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
- Embedded Ethernet Switch
- Rotating connector block
- Compact dimensions
- Installation flexibility and optimum form factor
- ACR4™: Advanced Code Reconstruction
- Excellent performance on low quality and damaged labels
- DS2100: Up to a 300 mm (11.8 in.) reading distance
- DS2400: Up to a 600 mm (23.6 in) reading distance

## 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 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)

# 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
- Top Industrial grade: IP65
- Operating temperature: 0-45°C
- Supply Voltage: 5 to 30 Vdc

### MATRIX 210™

#### 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



## Highlights

### MATRIX 210™

- 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

## Technical data

### MATRIX 210™

- 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
- IP65, 0-50°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



## Highlights

### 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

## Technical data

### 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
- IP65 and IP67 industrial grade for harsh environments
- Operating temperatures: -10 °C to 50°C (14 °F – 122 °F)

### MATRIX 300™ 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 300™ 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 300™ 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
- Top industrial grade: IP65-IP67
- Operating temperatures: 0 to 50° / 32 to 122 °F (1.3 MP models), 0 to 45° / 32 to 113 °F (2 MP models)



# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### 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



## Highlights

### MATRIX 410N™

- Patented continuous high power mode lighting
- Patented Packtrack 2D for short object gapping in sortation applications
- 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

## Technical data

### MATRIX 410N™

- Operating temperature: Manual Focusing models, 0° to + 50 °C (32 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



## Highlights

### 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 function for object gap tolerance up to 50 mm (2 in)
- 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

## Technical data

### 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%
- Factory warranty: 2 years

### 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 MPixels imagers sensor
- Interfacing CBX500 with display and back up memory
- Persistent Image Saving on specific reading results (No Read) for diagnostics or reporting
- IP65, 0-50° operating temperature
- 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



## Highlights

### 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 function for object gap tolerance up to 50 mm (2 in)

## Technical data

### 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

# IMAGE BASED BAR CODE READERS

## APPLICATIONS

### 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



## Highlights

### 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

## Technical data

### 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

# 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 of ±5mm at transport speeds up to 3.1 m/s
- Maximum box size 2500mm x 1200mm x 900mm
- Operating temperature: 0°C to 50°C
- 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



## Highlights

### 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

## Technical data

### DM3610 2-Head Solution

- Cuboidals and Irregulars
- Singulated (spacing > 25mm)
- Accuracy of ±5mm at transport speeds up to 3.1 m/s
- Up to 3.1 m/s (620 fpm)
- Maximum LWH = 2500x1600x1000mm
- Operating temperature: 0°C to 50°C
- IP 65
- Factory warranty: 2 years

# CONNECTIVITY DEVICES

WIDE RANGE OF **CONNECTIVITY**  
FOR THE IDENTIFICATION PRODUCT RANGE  
WITH STANDARD IP65 (NEMA4) PROTECTION CLASS  
AND OPERATING TEMPERATURE UP 0 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. 18, 08/2019



9C0002870

Product and Company names and logos referenced may be either trademarks or registered trademarks of their respective companies. We reserve the right to make modifications and improvements.  
Subzero models are not available for offer, sale or distribution in Germany.

[www.datalogic.com](http://www.datalogic.com)