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 machinesShipping & Receiving
- Cross docking

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)

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

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

Highlights

DS1500
- Extremely compact size
- Excellent reading capabilities
- Designed for OEM integration
- ACE™ 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

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 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)

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CE

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Subzero models are not available for offer, sale or distribution in Germany.

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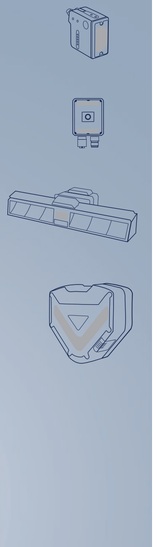
STATIONARY INDUSTRIAL SCANNERS

Product Guide



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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

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

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

DS8110/DX8210
- Airport Baggage Handling
- Parcel Sorting
- Retail Distribution Center
- Loading/Unloading System
- Shop Floor and Manufacturing
- Automatic Warehousing Management

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)

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)

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.

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

IMAGE BASED BAR CODE READERS

APPLICATIONS

MATRIX 120™

Electronics
- Track and trace PCB board manufacturing

Manufacturing
- Print & Apply – label verification
- Food & Beverage – traceability

OEM
- Kiosks – ticketing machine

Healthcare
- Clinical Lab – vials identification
- Chemical and biomedical analysis machine

MATRIX 210N™

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 220™

Electronics
- Tracking/tracing of electronic products and components
- DPM bar code reading

Automotive
- DPM code validation after marking
- Work-in-progress control, parts and assembly traceability

Packaging
- Primary packaging bar code reading
- Package traceability
- Food and beverage application

Document handling
- Fast decoding for high speed applications

MATRIX 300N™

Manufacturing
- DPM code validation after marking
- Work-in-progress control
- Parts and assemblies traceability
- Work-in-progress traceability

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 120™
- Ultra compact dimensions for easy integration
- Smart user selectable focus for high application flexibility
- 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

Highlights

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

Technical data

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
- IP65, 0-50°C

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
- 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
- Embedded Ethernet/IP and Profinet-IO industrial fieldbus
- 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)

Highlights

MATRIX 300N™
- Ultra-compact dimensions
- High performance DPM reading
- Liquid Lens Dynamic Focus Control
- Integrated dual illuminator: dark field/bright field
- Fast and high resolution image sensor
- Power over Ethernet Option and onboard PROFINET-IO
- Extreme Industrial grade: IP65-IP67 Industrial grade for harsh environments, 0-50°C operating temperature
- DL.CODE™ configuration SW and X-PRESS™ for easy and intuitive setup

Technical data

MATRIX 300N™
- Manual and electronic focus control
- CMOS global shutter sensor
- 1280 x 1024 (1.3 megapixels) image resolution
- Read rate: 60frames/s
- Connectivity: Ethernet 10/100: EtherNet IP, TCP/IP, UDP, FTP, MODBUS TCP, Serial RS232/RS422/RS485 up to 115.2 Kbit/s + Aux RS232,
- On-board PROFINET-IO
- IP65-IP67, 0-50°C

IMAGE BASED BAR CODE READERS

APPLICATIONS

MATRIX 410N™

Automotive
- Part traceability in assembly

Distribution & retail industry
- Manual Presentation
- Small Objects Sorting
- Totes content scanning

Medical & pharmaceutical
- Automated storage/retrieval
- Automated Order fulfilment/ validation

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

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

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

XRF 410N™
- E-Commerce
- General material handling with reusable totes
- Medium object sortation for couriers
- Postal Sorting
- End-of-line

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

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™
- SMP 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

Highlights

STS 400™
- Easy to install: 100% pre-assemble calibrating
- Easy to mantain
- 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

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
-

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

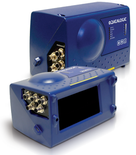
AV7000™
- CMOS linear sensor: 8192 pixels
- Image resolution: 110-260DPI (application dependant)
- Scan rate: 33KHz
- Readable symbologies: all standard 1D and 2D codes
- High quality Image for OCR and Videocoding
- Connectivity: RS232/RS485, Ethernet
- Video output: Gigabit Ethernet, CC-Link
- Protection 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

DM3610 2-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

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 compatibily and scalability
- Ethernet TCP/IP, EtherNet IP, Profibus, DeviceNet (GLM series)
- Factory warranty SC4000/SCS000: 2 years

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